(4) Remove mirror from side of lavatory by removing lower end of mirror from panel, then pulling downward to disengage clips at top of mirror.

C. Install Aft Lavatory Mirror.

(1) Place mirror in position on side of lavatory engaging clips and angles at top of mirror.

(2) Install bracket attaching screws at bottom of mirror.

(3) Close disposal bin doors below wash basin.

LAVATORY CABINETS - MAINTENANCE PRACTICES

1. Removal/Installation Aft Lavatory Towel Dispenser Cabinets (see Figure 201)

A. Equipment Required - None.

B. Remove Aft Lavatory Towel Dispenser Cabinet.

(1) Open PASS CALL SYS and LAV LTS circuit breakers on main circuit breaker panel.

(2) Open dispenser cabinet door.

(3) Disconnect wires from fluorescent light terminals.

(4) Disconnect wires from STEWARDESS CALL push-pull switch terminals.

(5) Disconnect air conditioning flex tubing from rigid tube attached to cabinet.

(6) Remove lavatory trim panels as required (refer to Removal/Installation Lavatory Trim Panels).

(7) Remove bolts, washers, and nuts from bottom of cabinet panel at inboard end.

(8) Remove remaining cabinet attaching bolts. Remove cabinet.

C. Install Aft Lavatory Towel Dispenser Cabinet.

(1) Place cabinet in position and install attaching bolts.

(2) Connect air conditioning flex tubing to rigid tube attached to cabinet.

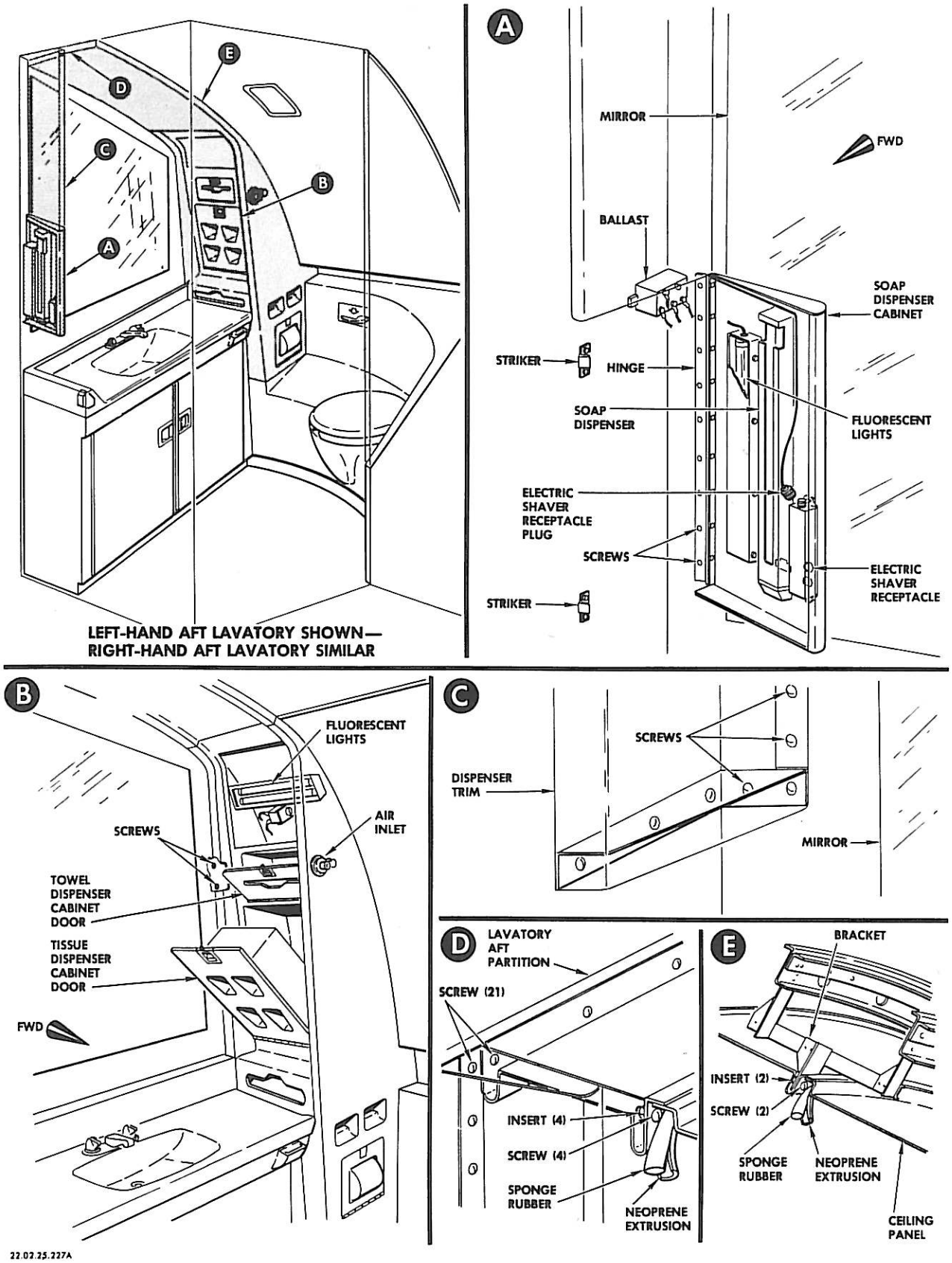
(3) Connect wires to STEWARDESS CALL push-pull switch terminals.

(4) Connect wires to fluorescent light terminals.

(5) Close and secure dispenser cabinet door.

(6) Install lavatory trim panels (refer to Removal/Installation Lavatory Trim Panels).

(7) Close PASS CALL SYS and LAV LTS circuit breakers on main circuit breaker panel.


E
D
C
B
A
LEFT-HAND AFT LAVATORY SHOWN—
RIGHT-HAND AFT LAVATORY SIMILAR
A
MIRROR
FWD
BALLAST
SOAP DISPENSER CABINET
STRIKER
HINGE
SOAP DISPENSER
FLUORESCENT LIGHTS
ELECTRIC SHAVER RECEPTACLE PLUG
SCREWS
ELECTRIC SHAVER RECEPTACLE
STRIKER
B
FLUORESCENT LIGHTS
AIR INLET
SCREWS
TOWEL DISPENSER CABINET DOOR
TISSUE DISPENSER CABINET DOOR
FWD
C
SCREWS
DISPENSER TRIM
MIRROR
D
LAVATORY AFT PARTITION
SCREW (21)
INSERT (4)
SCREW (4)
SPONGE RUBBER
NEOPRENE EXTRUSION
E
BRACKET
INSERT (2)
SCREW (2)
SPONGE RUBBER
NEOPRENE EXTRUSION
CEILING PANEL
22.02.25.227A

2. Removal/Installation Aft Lavatory Soap Dispenser Cabinets (see Figure 201)

A. Equipment Required - None.

B. Remove Aft Lavatory Soap Dispenser Cabinet.

(1) Open ELEC SHAVER and LAV LTS circuit breakers on main circuit breaker panel.

(2) Unlatch dispenser cabinet and swing cabinet away from inboard panel.

(3) Disconnect wires from fluorescent light terminals.

(4) Disconnect wires from electric shaver receptacle terminals.

(5) Remove dispenser cabinet attaching bolts and remove cabinet.

C. Install Aft Lavatory Soap Dispenser Cabinet.

(1) Place dispenser cabinet in position and install attaching bolts.

(2) Connect wires to electric shaver receptacle terminals.

(3) Connect wires to fluorescent light terminals.

(4) Close and secure dispenser cabinet.

(5) Close ELEC SHAVER and LAV LTS circuit breakers on main circuit breaker panel.

LAVATORY WARNING SIGNS - TROUBLE SHOOTING

POSSIBLE CAUSE	ISOLATION PROCEDURE AND CORRECTION
1. LAVATORY WARNING SIGNS WILL NOT ILLUMINATE -- ALL LAVATORIES	
A. Defective LAV OCCUP WARN LTS circuit breaker.	Check for power through circuit breaker. If no power, replace circuit breaker.
2. FORWARD LAVATORY WARNING SIGNS WILL NOT ILLUMINATE	
A. Defective wire between circuit breaker and forward lavatory door switches.	Check wire for continuity. If no continuity, repair or replace wire.
B. Defective ground wire.	Check ground wire for continuity. If no continuity, repair or replace ground wire.
3. FORWARD LAVATORY VACANT SIGNS WILL NOT ILLUMINATE WITH DOOR UNLOCKED -- OCCUPIED SIGNS ILLUMINATE WITH BOTH DOORS LOCKED	
A. Defective forward lavatory door unlock switch.	Check for continuity through switch with door unlocked. If no continuity, replace forward lavatory door lock.
B. Defective wire between forward lavatory door unlock switch and VACANT lights.	Check wire for continuity. If no continuity, repair or replace wire.
C. Defective ground wire.	Check wire for continuity. If no continuity, repair or replace wire.
4. FORWARD LAVATORY OCCUPIED SIGNS WILL NOT ILLUMINATE WITH BOTH DOOR(S) LOCKED -- VACANT SIGNS ILLUMINATE WITH DOOR UNLOCKED	
A. Defective forward lavatory door lock switch.	Check for continuity through switch with door latch in locked position. If no continuity, replace forward lavatory door lock.
B. Defective wire between forward lavatory door lock switch and OCCUPIED light.	Check wire for continuity. If no continuity, repair or replace wire.

POSSIBLE CAUSE	ISOLATION PROCEDURE AND CORRECTION
5. AFT LAVATORY WARNING SIGN WILL NOT ILLUMINATE	
A. Defective ground wire between:	Check wire for continuity. If no continuity, repair or replace wire.
(1) Lights and electrical plug.	
(2) Electrical plug and ground.	
6. AFT LAVATORY VACANT SIGN WILL NOT ILLUMINATE WITH DOOR UNLOCKED -- OCCUPIED SIGN ILLUMINATES WITH BOTH DOORS LOCKED	
A. Defective aft lavatory door unlock switch.	Check for continuity through switch with door unlocked. If no continuity, replace lavatory door lock.
B. Defective wire between:	Check wire for continuity. If no continuity, repair or replace wire.
(1) Unlock switch and electrical plug.	
(2) VACANT light and ground.	
(3) Receptacle and VACANT light.	
7. AFT LAVATORY OCCUPIED SIGN WILL NOT ILLUMINATE WITH BOTH DOORS LOCKED -- VACANT SIGN ILLUMINATES WITH DOOR UNLOCKED	
A. Defective lavatory door lock switch.	Check for continuity through switch with door latch in locked position. If no continuity, replace lavatory door lock.
B. Defective wire between:	Check wire for continuity. If no continuity, correct circuit.
(1) Lock switch and plug.	
(2) Receptacle and OCCUPIED light.	
(3) OCCUPIED light and ground.	

LAVATORY WARNING SIGNS - MAINTENANCE PRACTICES

1. Removal/Installation Forward Lavatory Warning Sign (Station 323) Light Bulbs

   A. Refer to Removal/Installation Forward Entrance Area and Movable Coat Closet Passenger Warning Sign Light Bulbs.

2. Removal/Installation Forward Lavatory Warning Sign (Station 526) Light Bulbs (Applicable to airplanes CV1 through CV34.)

   A. Refer to Removal/Installation Cabin Passenger Warning Sign Light Bulbs.

3. Removal/Installation Forward Lavatory Warning Sign (Movable Coat Closet) Light Bulbs (Applicable to airplanes CV35 through CV37.)

   A. Refer to Removal/Installation Forward Entrance Area and Movable Coat Closet Passenger Warning Sign Light Bulbs.

4. Removal/Installation Aft Lavatory Warning Sign Light Bulbs (see Figure 201)

   A. Equipment Required - None.

   B. Remove Aft Lavatory Warning Sign Light Bulbs.

      (1) Open LAV OCCUP WARN LTS circuit breaker on main circuit breaker panel.

      (2) Remove light receptacle caps.

      (3) Push in and turn bulb counterclockwise to remove.

   C. Install Aft Lavatory Warning Sign Light Bulbs.

      (1) Insert bulb in socket, push in and turn clockwise to install.

      (2) Install light receptacle caps.

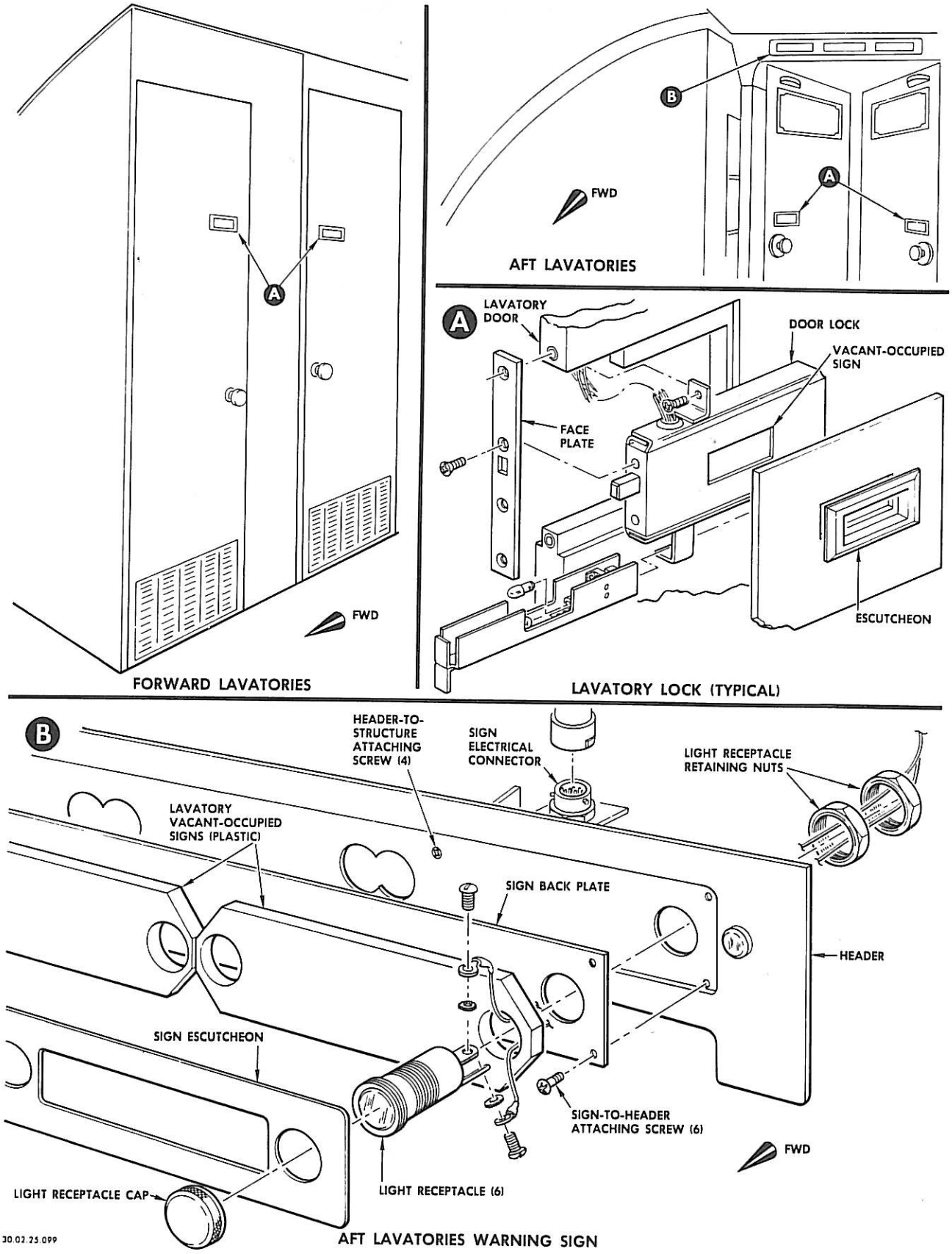
      (3) Close LAV OCCUP WARN LTS circuit breaker on main circuit breaker panel.

5. Removal/Installation Forward Lavatory Warning Sign (Station 526) (Applicable to airplanes CV1 through CV34.)

   A. Refer to Removal/Installation Cabin Passenger Warning Signs.

6. Removal/Installation Forward Lavatory Warning Sign (Movable Coat Closet) (Applicable to airplanes CV35 through CV37.)

   A. Refer to Removal/Installation Movable Coat Closet Passenger Warning Signs.


A
FWD
FORWARD LAVATORIES
B
FWD
AFT LAVATORIES
A
LAVATORY DOOR
DOOR LOCK
VACANT-OCCUPIED SIGN
FACE PLATE
ESCUTCHEON
LAVATORY LOCK (TYPICAL)
B
HEADER-TO-STRUCTURE ATTACHING SCREW (4)
SIGN ELECTRICAL CONNECTOR
LIGHT RECEPTACLE RETAINING NUTS
LAVATORY VACANT-OCCUPIED SIGNS (PLASTIC)
SIGN BACK PLATE
HEADER
SIGN ESCUTCHEON
SIGN-TO-HEADER ATTACHING SCREW (6)
FWD
LIGHT RECEPTACLE CAP
LIGHT RECEPTACLE (6)
30.02.25.099
AFT LAVATORIES WARNING SIGN

7. Removal/Installation Aft Lavatory Warning Sign (see Figure 201)

A. Equipment Required - None.

B. Remove Aft Lavatory Warning Sign.

(1) Open LAV OCCUP WARN LTS circuit breaker on main circuit breaker panel.

(2) Remove light receptacle caps.

(3) Remove lavatory sign escutcheon.

(4) Remove screws securing sign assembly to header.

(5) Move sign assembly forward and disconnect wiring from light receptacles.

(6) Remove sign assembly.

(7) Remove retaining nuts from aft side of light receptacles and remove receptacles.

NOTE: Light receptacles secure plastic signs to sign assembly back plate.

C. Install Aft Lavatories Warning Sign.

(1) Insert light receptacles through holes in plastic signs and sign assembly back plate and install retaining nuts.

(2) Connect wiring to light receptacles.

(3) Install sign assembly on header with attaching screws.

(4) Place sign escutcheon in place and install light receptacle caps.

(5) Close LAV OCCUP WARN LTS circuit breaker on main circuit breaker panel.

8. Removal/Installation Lavatory Door Lock (see Figure 201)

NOTE: The lavatory door switches are an integral part of the door lock; therefore, if a door switch is found to be defective, the lock must be replaced.

A. Equipment Required - None.

B. Remove Lavatory Door Lock.

(1) Open LAV OCCUP WARN LTS circuit breaker, on main circuit breaker panel.

(2) Remove latch handles from lock.

(3) Remove four screws and face plate from door edge.

(4) Remove lock from door and cut switch pigtail leads from airplane wires at permanent splice.

C. Install Lavatory Door Lock.

(1) Splice door lock switch pigtail leads to airplane wires (refer to WIRING DIAGRAM MANUAL).

(2) Install lock in door and secure with face plate and attaching screws.

(3) Install latch handles on door lock.

(4) Close LAV OCCUP WARN LTS circuit breaker.

9. Removal/Installation Lavatory Door Lock Occupied/Vacant Sign Light Bulb (see Figure 201)

A. Equipment Required - None.

B. Remove Occupied/Vacant Sign Bulb.

(1) Remove four screws from lavatory door lock face plate, and remove face plate.

(2) Pull out bulb housing installed under lock case.

(3) Turn bulb counterclockwise, and remove from bulb housing.

C. Install Occupied/Vacant Sign Bulb.

(1) Install serviceable bulb in bulb housing. (Turn bulb clockwise to install.)

(2) Push bulb housing into space provided under lock case until bulb housing plug engages with receptacle.

(3) Install door lock face plate, and secure with four screws.

ELECTRIC SHAVER RECEPTACLES - TROUBLE SHOOTING

POSSIBLE CAUSE	ISOLATION PROCEDURE AND CORRECTION
1. NO ELECTRICAL POWER AT SHAVER RECEPTACLE - ALL LAVATORIES	
A. Defective ELEC SHAVER circuit breaker	Check for presence of power through circuit breaker. If no power, replace circuit breaker.
2. NO ELECTRICAL POWER AT SHAVER RECEPTACLE - ONE LAVATORY	
A. Defective or loose wire between circuit breaker and lavatory shaver receptacle.	Check wires for continuity. If no continuity, repair or replace wires.
B. Defective or loose ground wire.	Check wire for continuity. If no continuity, repair or replace ground wire.
C. Defective shaver receptacle.	Check receptacle input voltage at terminals. If correct, replace receptacle.

ELECTRIC SHAVER RECEPTACLES - MAINTENANCE PRACTICES

1. Removal/Installation Electric Shaver Receptacle (see Figure 201)

   A. Equipment Required - None.

   B. Remove Electric Shaver Receptacle.

      (1) Open ELEC SHAVER and FWD PASS CALL circuit breakers on main circuit breaker panel.

      (2) Open dispenser cabinet door (aft lavatories).

      (3) Slide stewardess call panel aft and remove panel (forward lavatories).

      (4) Disconnect electrical wires from shaver receptacle.

      (5) Remove shaver receptacle attaching screws. Remove receptacle.

   C. Install Electric Shaver Receptacle.

      (1) Place shaver receptacle in position.

      (2) Install shaver receptacle attaching screws.

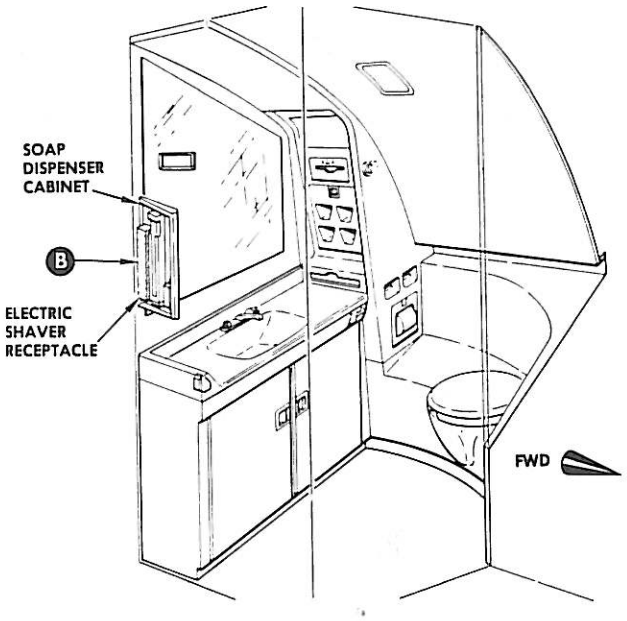
      (3) Connect electrical wires to shaver receptacle.

      (4) Close and secure dispenser cabinet door (aft lavatories).

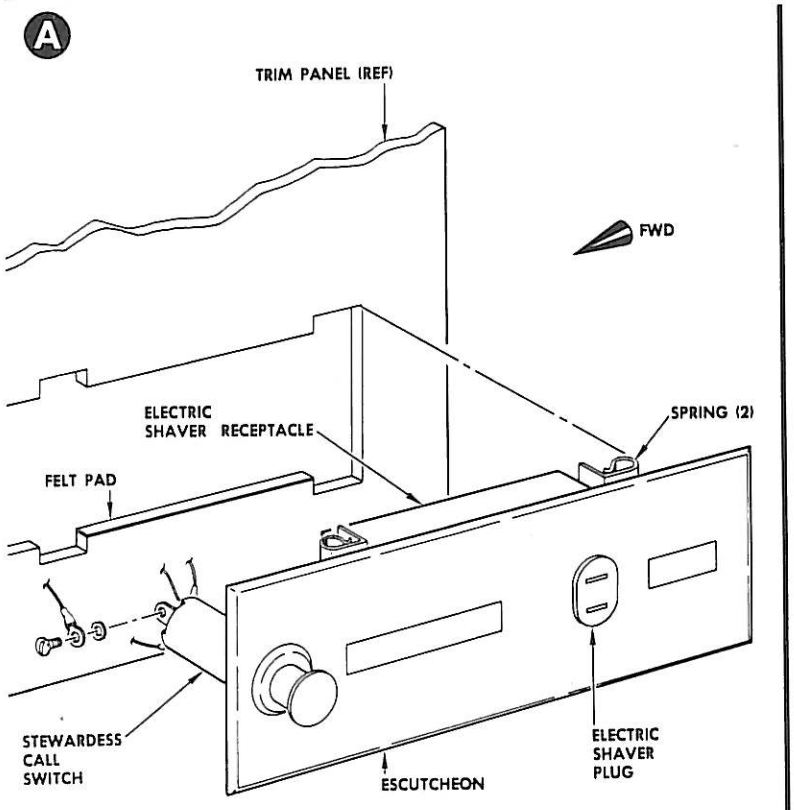
      (5) Place stewardess call panel in panel cutout and slide forward to engage spring clips (forward lavatories).

      (6) Close ELEC SHAVER and FWD PASS CALL circuit breakers on main circuit breaker panel.

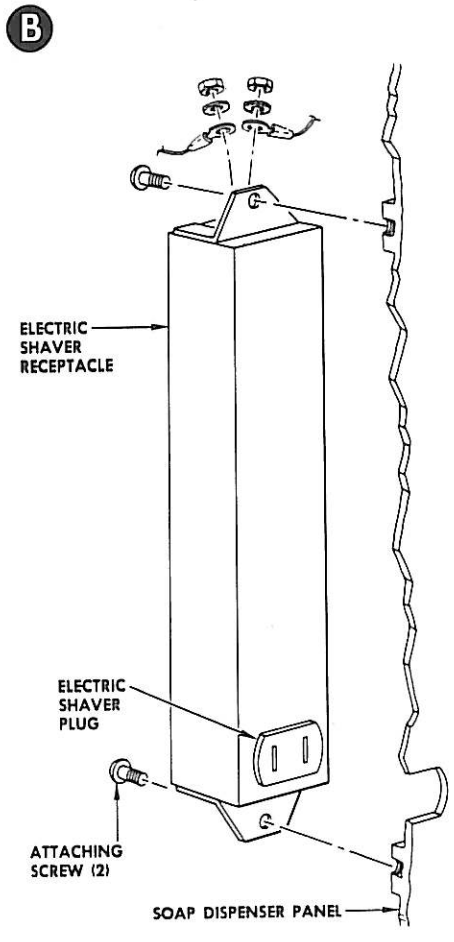
FORWARD LAVATORY (TYPICAL)



AFT LAVATORY (TYPICAL)



STEWARDESS CALL PANEL (TYPICAL)



TYPICAL INSTALLATION

30 02 25 103

CARGO AND ACCESSORY EQUIPMENT COMPARTMENTS - DESCRIPTION AND OPERATION

1. General

Four pressurized compartments are located in the lower section of the fuselage. These compartments are the electrical and electronic compartment, the forward and aft cargo compartments, and the hydraulic compartment. The cargo compartments provide space for the transportation of luggage and cargo. The electrical and electronic compartment and the hydraulic compartment provide central location for the installation of system components to facilitate maintenance.

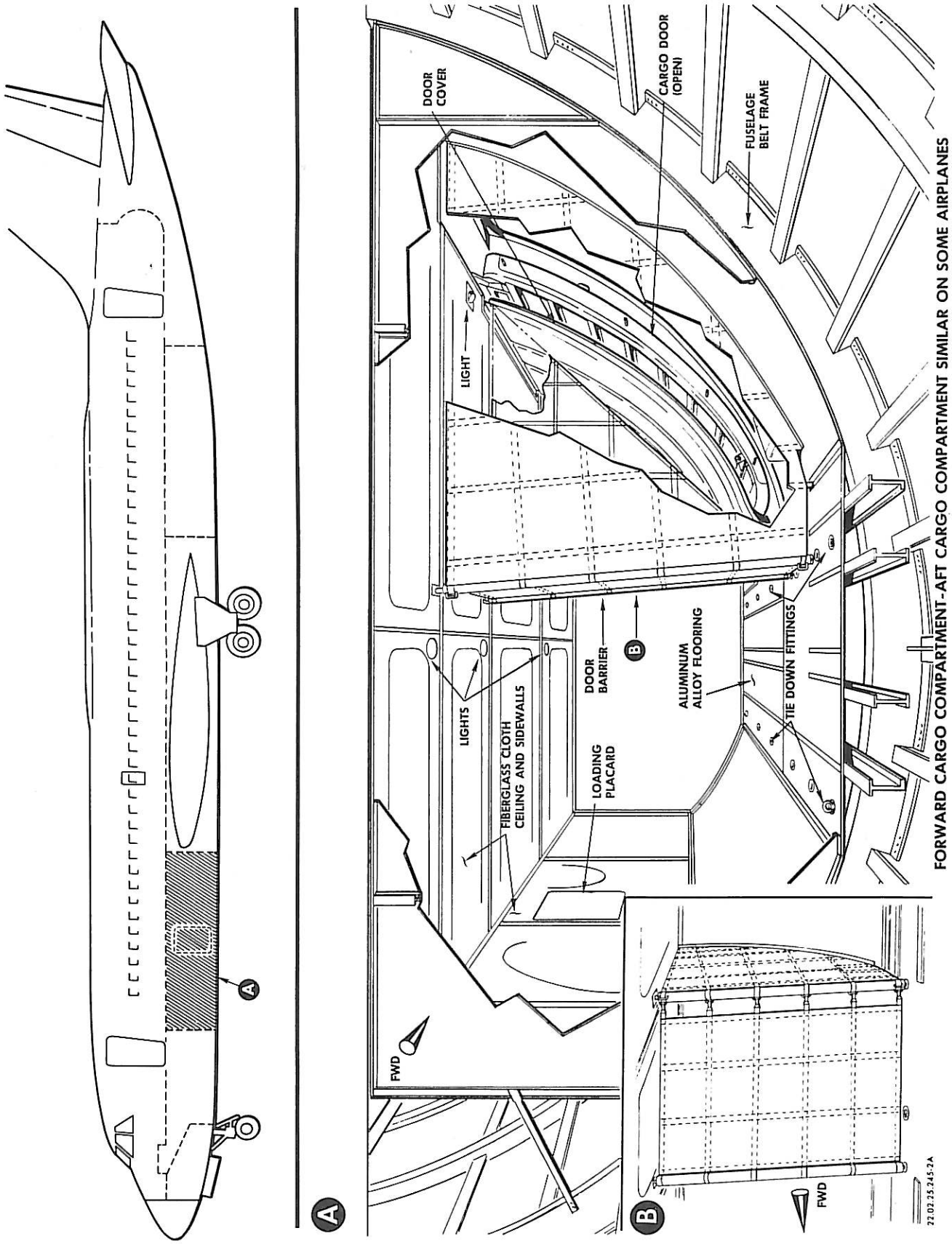
2. Cargo Compartments

The cargo compartments are located in the lower portion of the fuselage, forward and aft of the wing, and are easily accessible through the cargo doors on the right side of the fuselage (see Figure 1). Loading placards are mounted on the left sidewall of each compartment opposite the loading door. The cargo compartments are formed by removable, light-weight, fireproof, silicone rubber impregnated nylon cloth side and ceiling panels and aluminum sheet floor panels. The side and ceiling panels have "zippered" openings. Fiberglass panels are installed between ceiling panels and airplane structure to protect tubing, ducts, control cables, electric wiring, etc. Sections of the fiberglass panels are secured with Dzus fasteners to permit access to items listed. Nylon skid strips are installed on the floor panels to protect the panels and to facilitate baggage handling within the compartment. The floor panels are sized so that they can be removed through the cargo door. The floor, ceiling and side panels are installed with screws and anchor nuts. Cargo tie downs are provided in the forward and aft cargo compartments.

3. Cargo Compartment Door Barriers (see Figure 1)

The cargo compartment doors are the plug type that open inwardly. To insure clearance for door opening, a door barrier is installed around the door opening in each cargo compartment.

The forward and aft sides of each barrier are formed by nylon straps sewed to nylon fabric. Each side is secured to aircraft structure and a removable stanchion. The barrier's inboard side consists of nylon straps sewed to fabric and is suspended between the two removable stanchions. After the cargo door is opened, entrance to the cargo compartment is gained by releasing six clips that secure the inboard side of the barrier to the aft stanchion and folding the inboard side back out of the way.



FORWARD CARGO COMPARTMENT-AFT CARGO COMPARTMENT SIMILAR ON SOME AIRPLANES

4. Cargo Compartment Pressurization (see Figure 1)

A 2.75-inch breather hole is provided in each cargo compartment in the ceiling above and just forward of the cargo door to permit pressure equalization between the passenger compartment and the cargo area. A blowout panel is also located directly above the cargo door to allow the pressure to equalize quickly should an explosive decompression condition occur.

5. Cargo Compartment Fire Protection

Both cargo compartments are FAA defined, Class D, Smother compartments. The airflow into each is insufficient to support combustion.

6. Cargo Compartment Lighting

Each cargo compartment is illuminated by three dome lights and one threshold light. These lights are illuminated by the actuation of a plunger-type light switch whenever the doors are opened; they are extinguished when the doors are closed. (Refer to Chapter 33, LIGHTS for further information.)

7. Electrical and Electronic Compartment (see Figure 2)

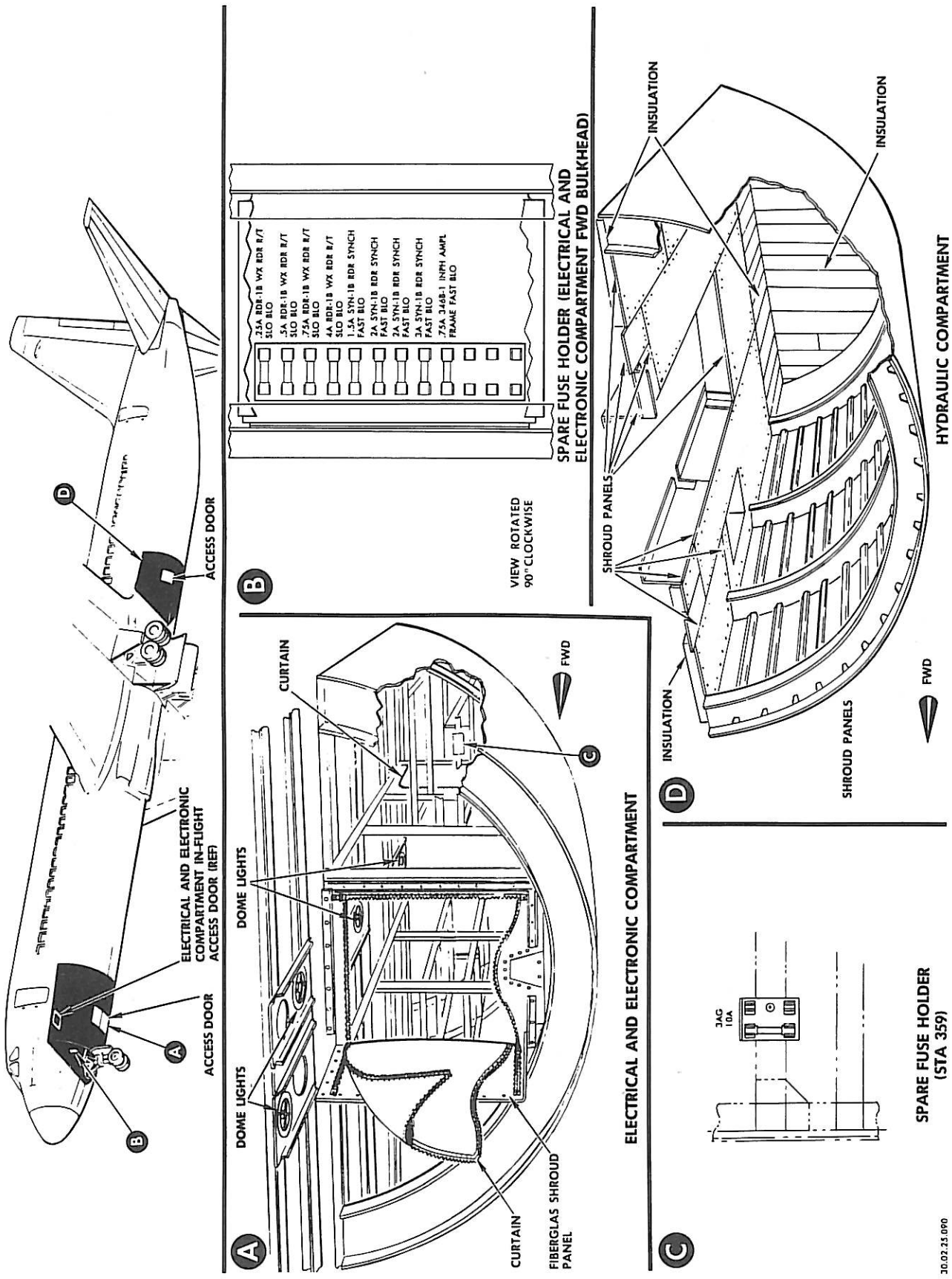
The electrical and electronic compartment is located in the lower section of the fuselage between the nose wheel well and the forward cargo compartment. This compartment contains electrical, radio, and radar system units. Normal access to the electrical and electronic compartment is through the electrical and electronic compartment access door which is located in the bottom of the fuselage just aft of the nose wheel well. An in-flight access door is also provided in the floor of the forward entrance area coat closet.

8. Electrical and Electronic Compartment Shroud Panel and Curtain

A fire-resistant fiberglass shroud panel is installed on the aft right-hand floor of the compartment. The shroud panel is in three sections and is fastened to the fuselage structure with screws. Overhead and vertical vinyl-coated Nylon fabric curtains, plus the fiberglass shroud panel, seal the electrical section from the remainder of the compartment. The electrical section of the compartment is separated to prevent smoke and fumes caused by an electrical short or fire from entering the cabin area.

9. Electrical and Electronic Compartment Spare Fuse Holders (see Figure 2)

Spare fuse holders are located in the electric and electronic compartment on the aft side of the forward bulkhead and on the aft side of the autopilot equipment rack (station 359).



Electrical and Electronic
Compartment and Hydraulic Compartment
Figure 2

Spare fuses for the interphone amplifier and radar equipment are provided in the holder on the forward bulkhead. One 10-ampere fuse is provided in the holder at station 359 on the autopilot equipment rack.

Spare fuses are also located in the external power junction box.

10. Electrical and Electronic Compartment Lighting

The electrical and electronic compartment is illuminated by four dome lights. A limit switch on the ground access door and a toggle switch at the inflight access door control the lights. (Refer to Chapter 33, LIGHTS for further information.)

11. Hydraulic Compartment (see Figure 2)

The hydraulic compartment is located just forward of the aft cargo compartment in the lower portion of the fuselage. This compartment contains components of the airplane's hydraulic systems. Access to the compartment is through the hydraulic compartment access door located in the left side of the fuselage just aft of the wing trailing edge.

12. Hydraulic Compartment Shroud Panel

The hydraulic compartment shroud panel consists of fiberglass panel sections with two-inch insulation bonded to the aft, or upper, side of the panel. Panel sections are mounted overhead and on the structure just forward of the compartment aft bulkhead. Each panel section may be removed individually. The hydraulic compartment shroud panel dampens hydraulic compartment noise and directs hydraulic fluid vapors overboard, away from the cabin area.

13. Hydraulic Compartment Lighting

The hydraulic compartment is illuminated by a single dome light controlled by an access door limit switch.

CARGO COMPARTMENTS - MAINTENANCE PRACTICES

1. Removal/Installation Cargo Compartments Ceiling Panels (see Figure 201)

   A. Equipment Required - None.

   B. Remove Cargo Compartment Ceiling Panels.

      (1) Open FWD CARGO COMPT LTS or AFT CARGO & TAIL COMPT LTS circuit breaker on main circuit breaker panel.

      (2) Remove cargo door barrier stanchions by pushing each stanchion up into its ceiling fitting, angling stanchion toward door opening, and pulling down.

      (3) Remove screws from upper door barrier fittings and remove fittings.

      (4) Remove dome light covers by turning them clockwise.

      (5) Open left-hand ceiling panel zippers and release dome lights from paneling and ceiling by removing screws.

      (6) Remove screws that attach stripping and ceiling panels to adjacent structure and remove stripping and panels.

   C. Install Cargo Compartment Ceiling Panels.

      (1) Lift ceiling panels into place with zippers closed. Position stripping and secure to structure with screws.

      (2) Position upper door barrier fittings and secure with screws.

      (3) Open left-hand ceiling panel zippers and secure dome lights to paneling and ceiling structure with screws. Close zippers.

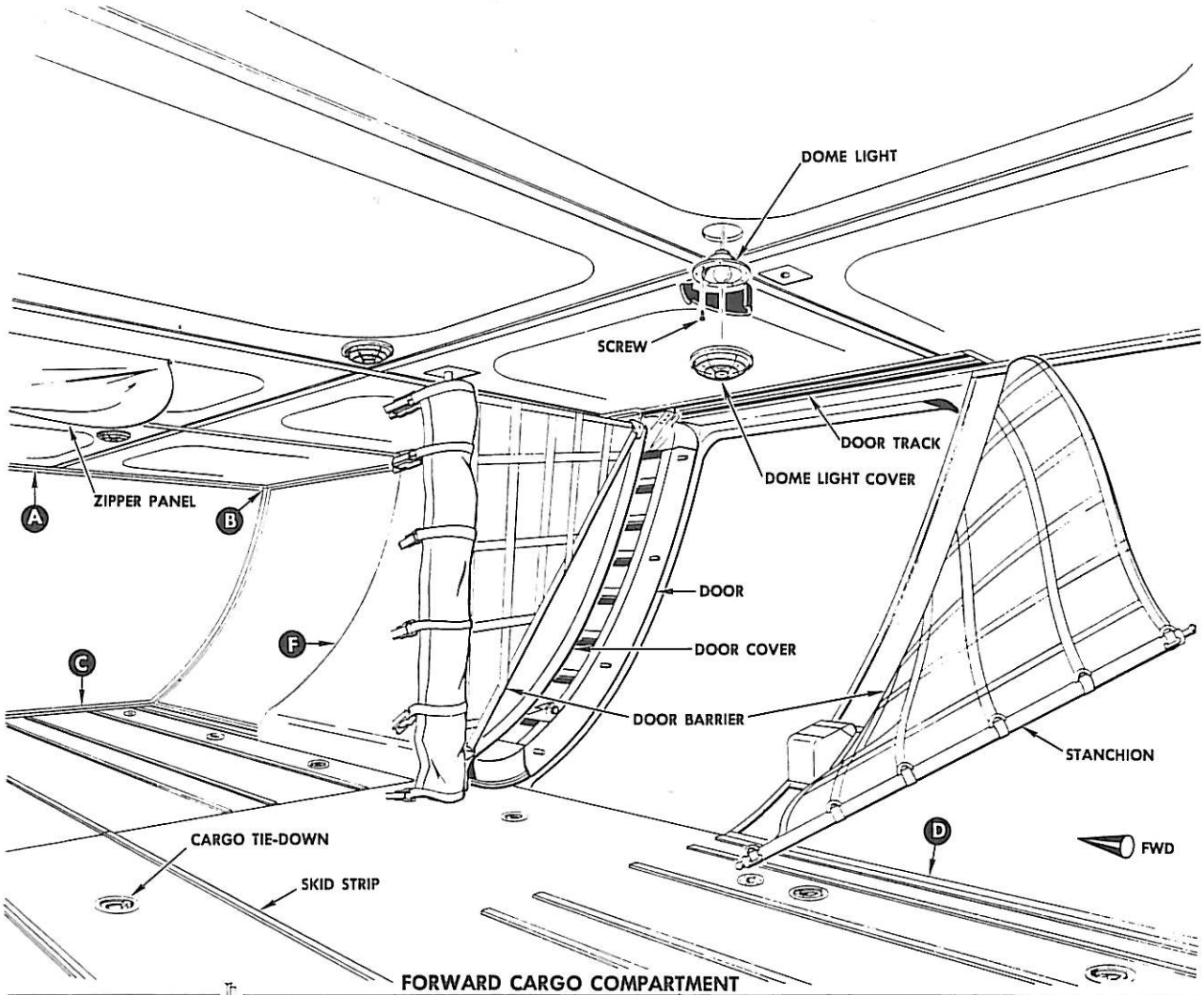
      (4) Install dome light covers by turning them counterclockwise.

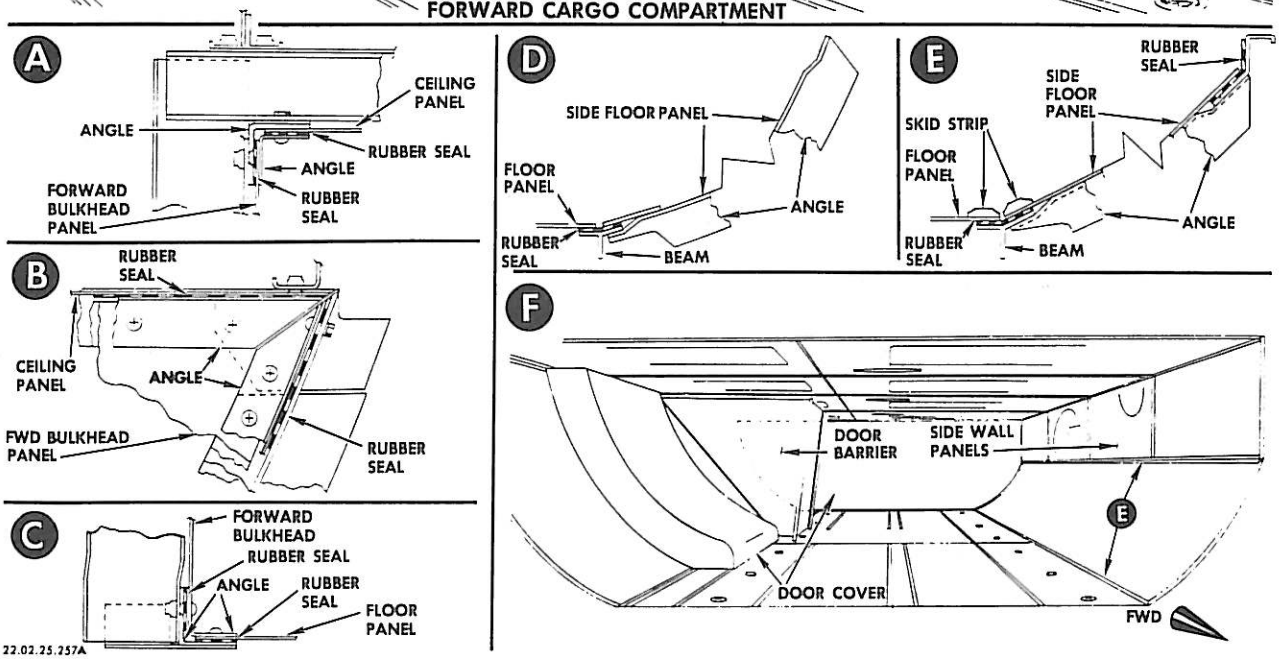
      (5) Install cargo door barrier stanchions by pushing each stanchion up and into its ceiling fitting and slowly releasing upward pressure while guiding stanchion's lower end into its floor fitting.

      (6) Close FWD CARGO COMPT LTS or AFT CARGO & TAIL COMPT LTS circuit breaker on main circuit breaker panel.

2. Removal/Installation Cargo Compartment Floor Panels (see Figure 201)

   A. Equipment Required - None.





Cargo Compartment Ceiling, Side, Bulkhead and Floor Panel Installation
Figure 201

B. Remove Cargo Compartment Floor Panels.

(1) Remove cargo door barrier stanchions by pushing each stanchion up into its ceiling fitting, angling stanchion toward door opening, and pulling down.

(2) Remove screws that attach nylon barrier to floor panels.

(3) Remove screws from door barrier stanchion lower fitting and remove fittings.

(4) Remove screws that attach nylon strips and floor panels to floor structure and remove strips and panels.

C. Install Cargo Compartment Floor Panels.

(1) Position floor panels and nylon strips on floor structure and secure with screws.

(2) Position lower door barrier stanchion fittings and secure with screws.

(3) Secure nylon barrier to floor panels with screws.

(4) Install cargo door barrier stanchions by pushing each stanchion up into its ceiling fitting and slowly releasing upward pressure while guiding stanchion's lower end into its floor fitting.

3. Removal/Installation Cargo Compartment Door Barriers

A. Equipment Required - None.

B. Remove Forward Cargo Door Barrier Assembly.

(1) Unclip six clips that secure barrier's inboard side to aft stanchion.

(2) Remove cargo door barrier stanchions by pushing each stanchion up into its ceiling fitting, angling stanchion toward door opening, and pulling down.

(3) Remove screws from forward and aft sides of barrier and remove barrier.

C. Install Forward Cargo Door Barrier Assembly.

(1) Position forward and aft sides of cargo door barrier on forward and aft sides of cargo door opening and secure barrier sides to aircraft with screws.

(2) Install cargo door barrier stanchions by pushing each stanchion up into its ceiling fitting and slowly releasing upward pressure while guiding stanchion's lower end into its floor fitting.

(3) Secure barrier's inboard side to aft stanchion with six clips.

4. Approved Repairs Cargo Compartment Side or Ceiling Panels

A. Equipment Required.

(1) Repair material - Neoprene coated fiberglass (B.F. Goodrich Code Number FS-821, or equivalent).

(2) Any of following cements:

Bostick 1024, Parts A and B (B.B. Chemical Co.).

Bostick 1008, Parts A and B (B.B. Chemical Co.).

EC 1403 (Minnesota Mining and Manufacturing Co.).

(3) Cleaning Solvent - Methyl Ethyl Ketone or equivalent.

(4) Clean, lint free cleaning cloths.

(5) Scissors.

(6) Small brushes (half-inch width).

(7) Steel wool pads.

(8) Two-inch rubber hand roller.

B. Scuff Damage Repair:

(1) Buff around damaged area of panel with steel wool so that area is moderately but completely roughened.

(2) Wipe area with clean cloth slightly dampened with cleaning solvent to remove all loose particles.

(3) Cut patch large enough to cover damaged area.

(4) Mix cement to ratio recommended by manufacturer. (Do not mix more than will be used in an eight hour period.)

(5) Apply one coat of mixture to repair patch and one coat to damaged area of baggage liner.

(6) Allow cement to air dry until tacky and keep both cemented areas clean.

(7) Apply patch to panel of liner with an edge or center adhering first. Work remainder of patch down carefully to avoid trapping air pockets.

(8) Thoroughly roll patch, working from center to outer edges. If edge is not tight, recement and allow to dry and then roll down. Allow repair to set for ten to fifteen minutes. (Maximum adhesion of patch to panel will be reached in 24 hours.)

(9) Wipe patch and surrounding area from center to outer edges with clean cloth dampened with MEK.

C. Tear, Puncture and Cut Repairs:

NOTE: Tears, punctures and cuts in baggage compartment panels should be repaired on both sides with patches. Size of patches will be determined by damaged area.

(1) Clean around damaged area with clean cloth dampened with cleaning solvent.

(2) Cut a patch large enough to cover damage and extend at least five-eighths inch beyond edges and ends of tear or cut. Bevel edges of patches by cutting with scissors at an angle.

(3) Thoroughly roughen area around damage with steel wool.

(4) Clean buffed area with clean cloth dampened with cleaning solvent to remove all loose particles.

(5) Mix cement to ratio recommended by manufacturer. (Do not mix more than will be used in an eight hour period.)

(6) Apply one coat of mixture to repair patch and one coat to damaged area of baggage liner.

(7) Allow cement to air dry until tacky; keep cemented areas clean.

(8) When cement becomes tacky (dry) stick edge of patch in place, working remainder down with slight pulling action so injury is closed. Do not trap air between patch and panel surface.

(9) Thoroughly roll patch, working from center to outer edges. If edge is not tight, recement and allow to dry and then roll down. Allow repair to set for ten to fifteen minutes. (Maximum adhesion of patch to panel will be reached in 24 hours.)

(10) Wipe patch and surrounding area from center to outer edges with clean cloth dampened with cleaning solvent.

EMERGENCY EQUIPMENT - DESCRIPTION AND OPERATION

1. General

Emergency equipment in the occupied compartments consists of water and CO_2 fire extinguishers, a fire axe, portable oxygen bottles, escape slides, escape ropes, life rafts, life vests, an emergency transmitter, and emergency exit lights. This equipment is located throughout the airplane (see Figures 1 and 2) and is readily accessible should the need arise. Access and operational instructions are stenciled adjacent to or on the equipment to assure proper use.

2. Portable Fire Extinguishers

A. Carbon Dioxide (CO_2) Type.

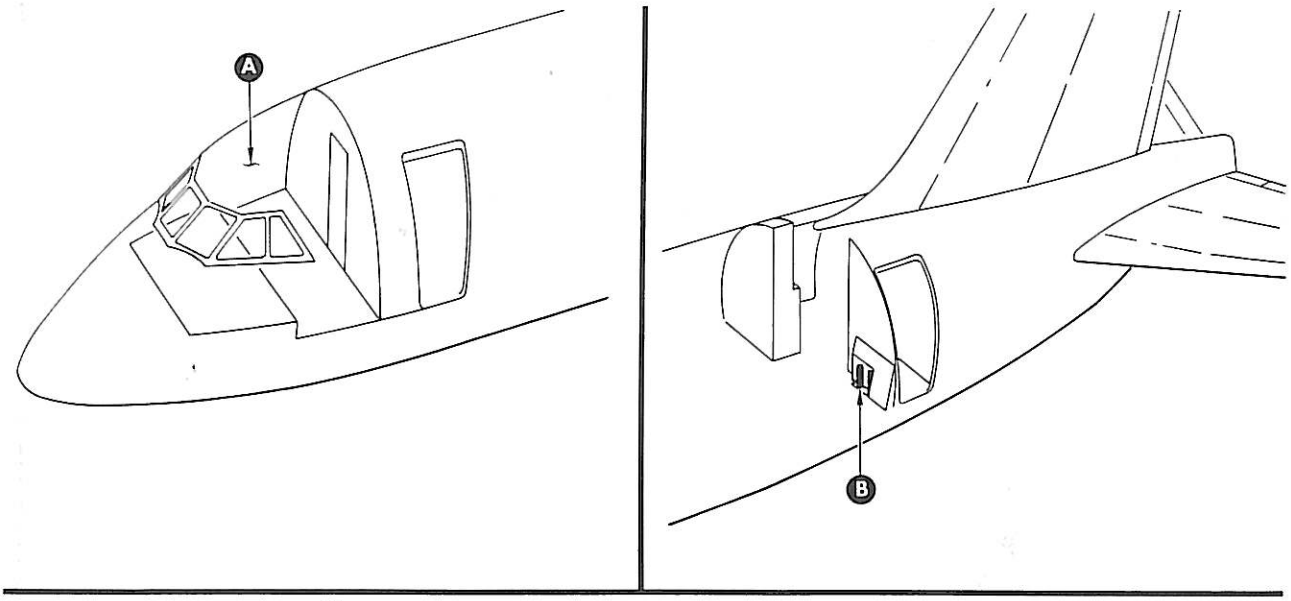
One portable carbon dioxide (type 5TB-1) fire extinguisher is installed in the flight compartment at floor level, on the forward leg of the flight engineer's table. The carbon dioxide extinguisher is intended primarily for use in extinguishing electrical fires, and may be readily distinguished by the horn type nozzle. The operating trigger is lock-wired and sealed; operating force on the trigger breaks the lock wire when the extinguisher is used. The empty weight of the extinguisher is stamped on the neck of the valve beneath the handle. Servicing data is recorded on a record card attached to the extinguisher with a metal clip. The extinguisher is equipped with a safety disc which will allow it to discharge if the internal pressure increases due to excessive temperature. This condition is indicated by a forward movement of the tripper exposing "REPLACE DISC."

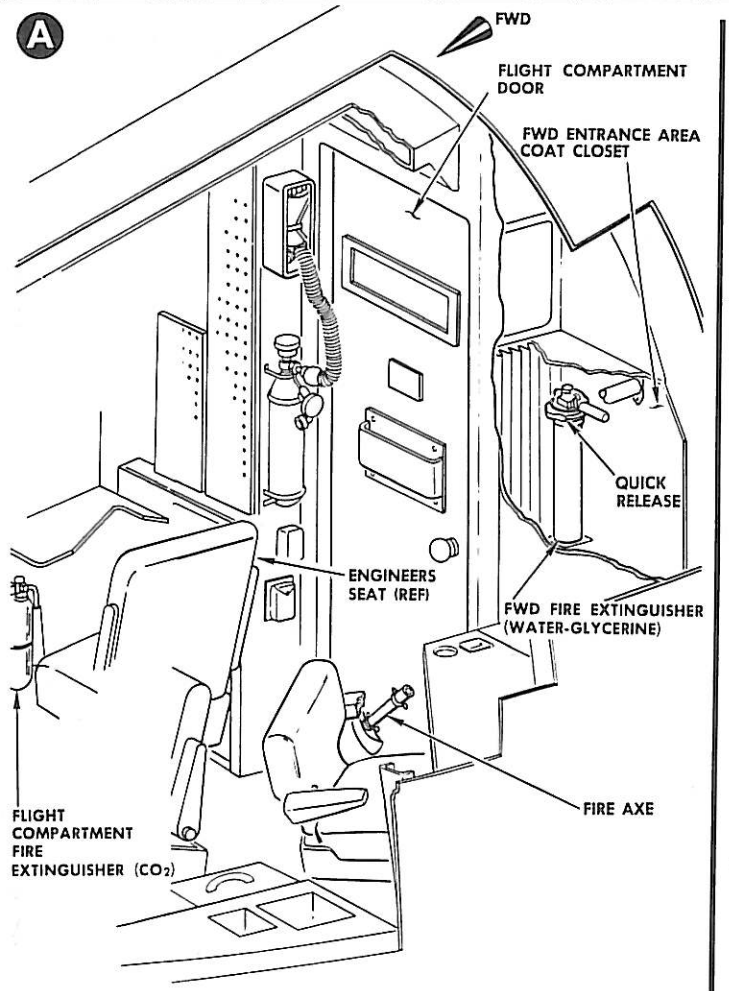
B. Liquid-Type.

Three portable liquid-type fire extinguishers are provided in the passenger area. One extinguisher is mounted on the aft wall inside the forward entrance area coat closet. The other two extinguishers are mounted on the forward side of the main cabin aft bulkhead, on the left side at floor level. The liquid-type extinguishers are intended for extinguishing non-electrical fires. Discharge is effected by pressure from a CO_2 cartridge in the extinguisher handle. The pressure is released by twisting the handle to puncture the cartridge. Operation is controlled by pressing a thumb-operated lever. The operating lever is lock-wired and sealed; the lock wire is broken when the lever is pressed.

3. Portable Oxygen Bottles

Five portable oxygen bottles are conveniently located in the main passenger compartment. Two bottles are stored in the right-hand movable coat closet, one bottle in the left-hand movable coat closet, and two bottles are located in buffet No. 5. In addition, a portable oxygen bottle is stored in the flight compartment, to the right of the compartment door. For further information, refer to Chapter 35, OXYGEN.





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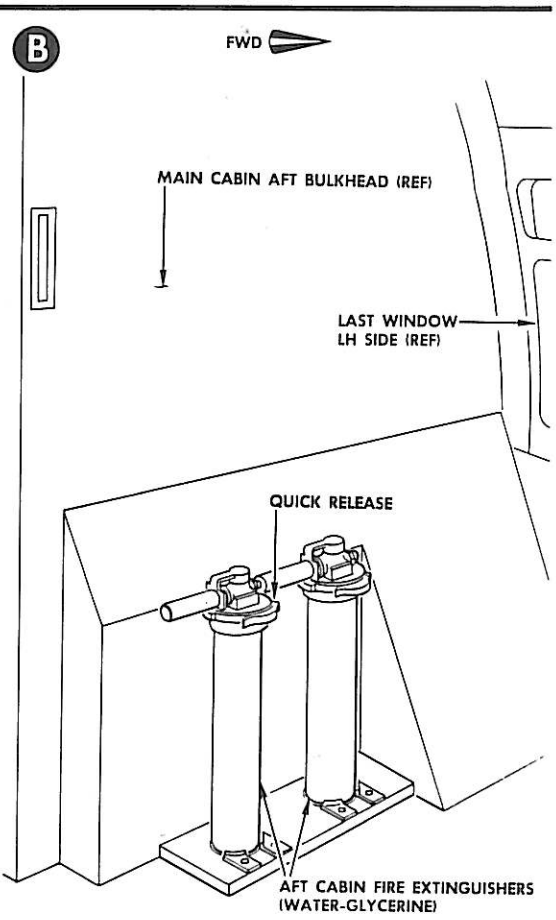
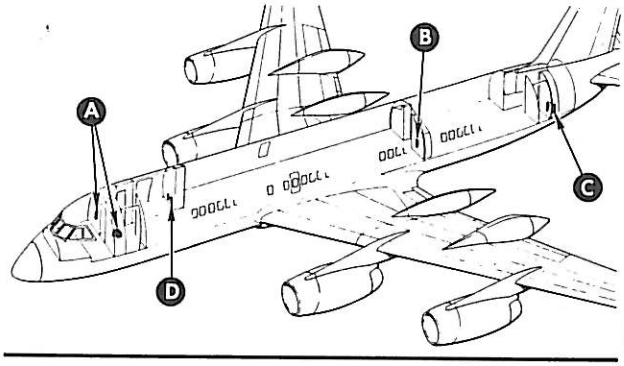
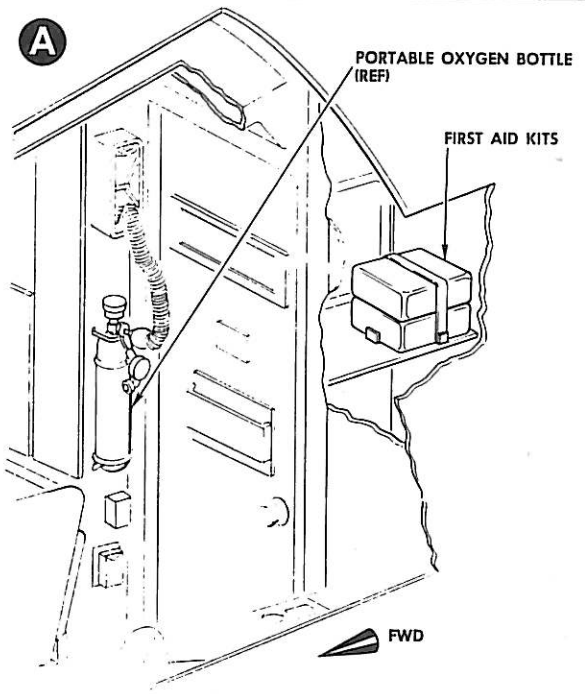
FLIGHT COMPARTMENT

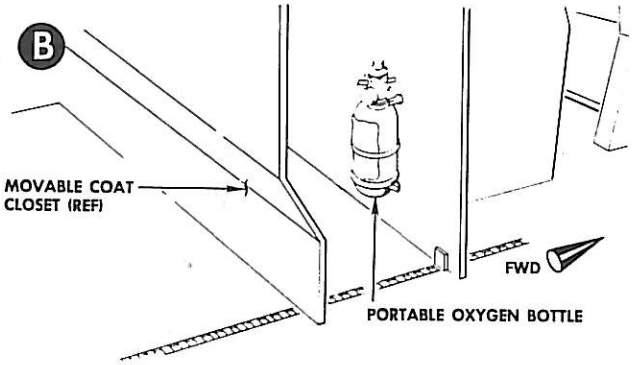


LOOKING AFT AND OUTBD LH SIDE SEATS OMITTED

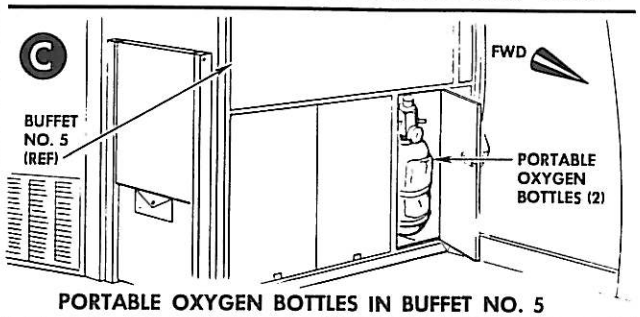




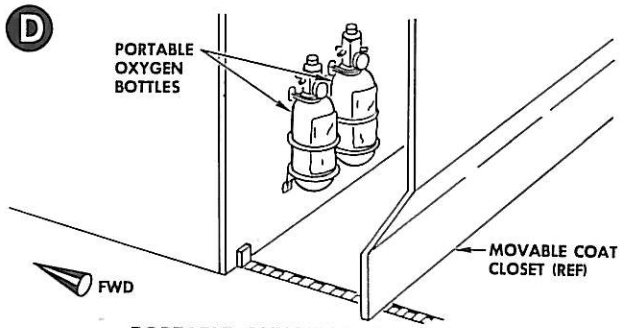
FIRST AID KITS IN FORWARD COAT CLOSET



PORTABLE OXYGEN BOTTLE IN MOVABLE COAT CLOSET

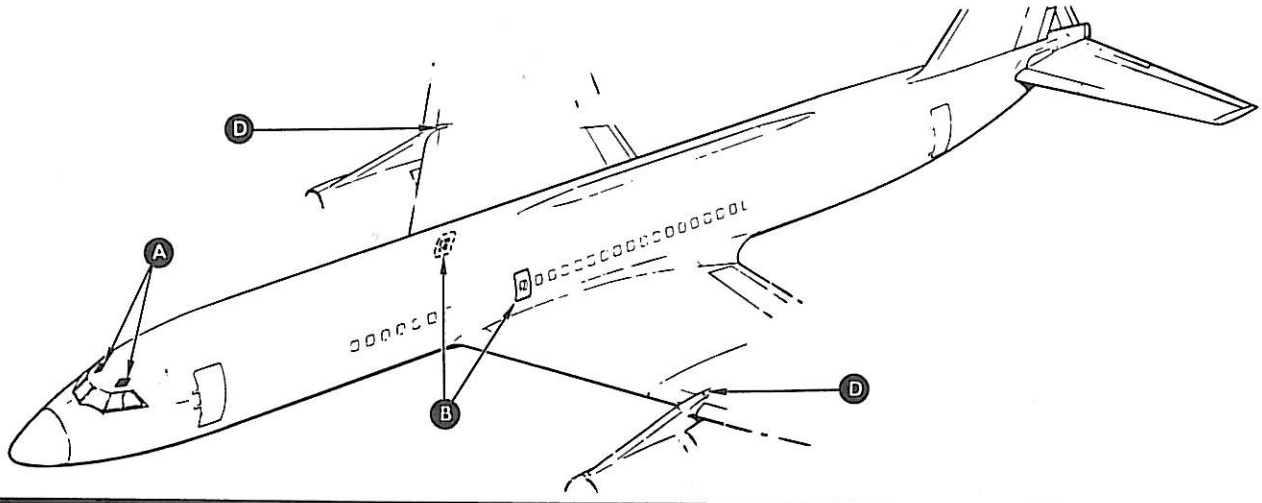


PORTABLE OXYGEN BOTTLES IN BUFFET NO. 5

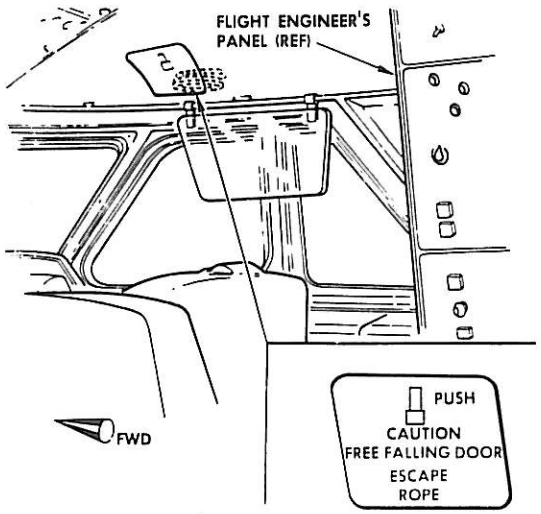


PORTABLE OXYGEN BOTTLES IN FORWARD MOVABLE COAT CLOSET

30.02.25.088A

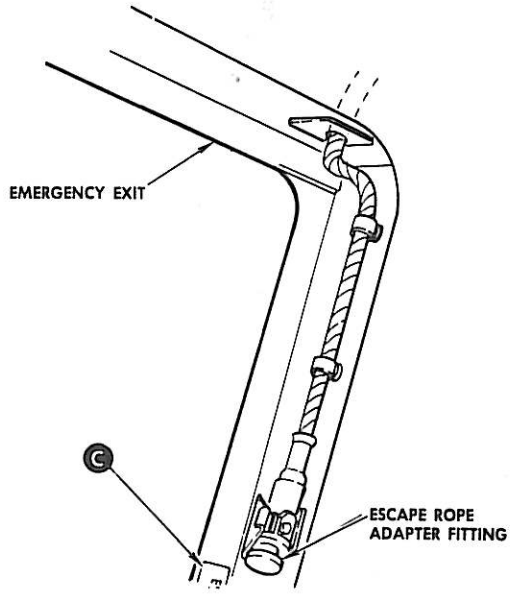


A



FLIGHT COMPARTMENT ESCAPE ROPES (RIGHT-HAND SHOWN)

B

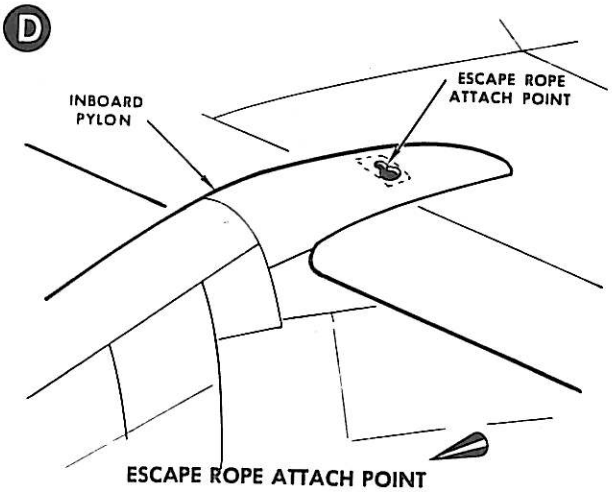


EMERGENCY EXIT ESCAPE ROPE

C

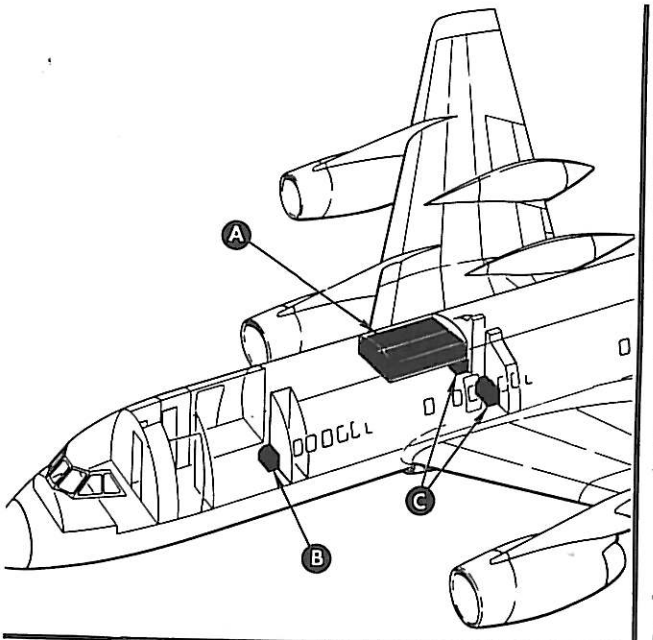
ESCAPE ROPE STENCIL

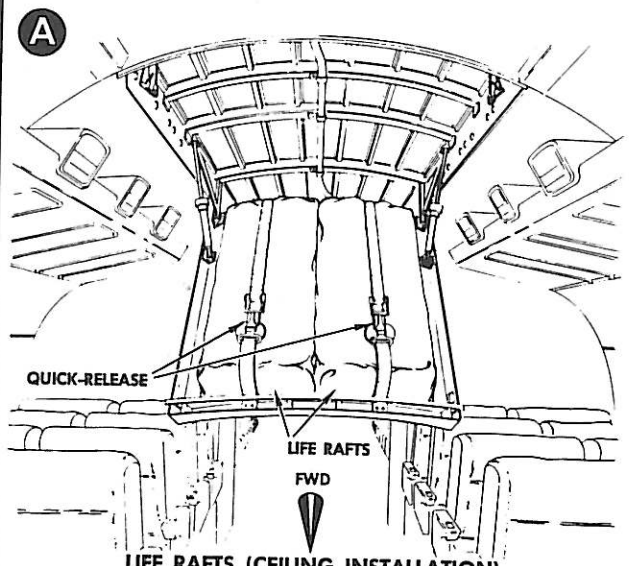
D



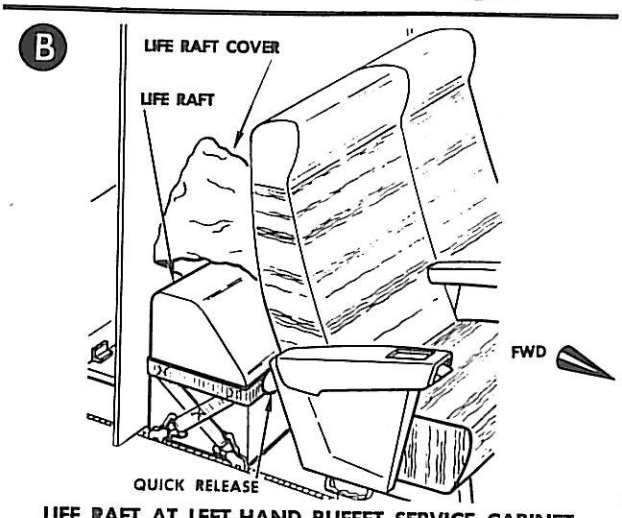
ESCAPE ROPE ATTACH POINT

30.02.25.069-3



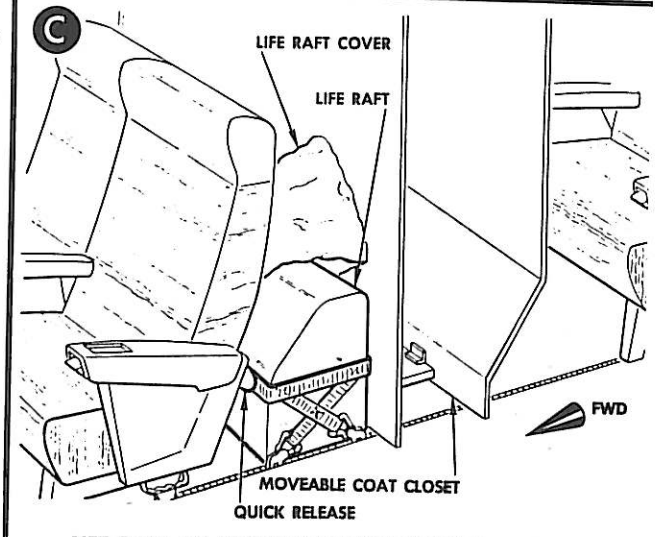


LIFE RAFTS (CEILING INSTALLATION)

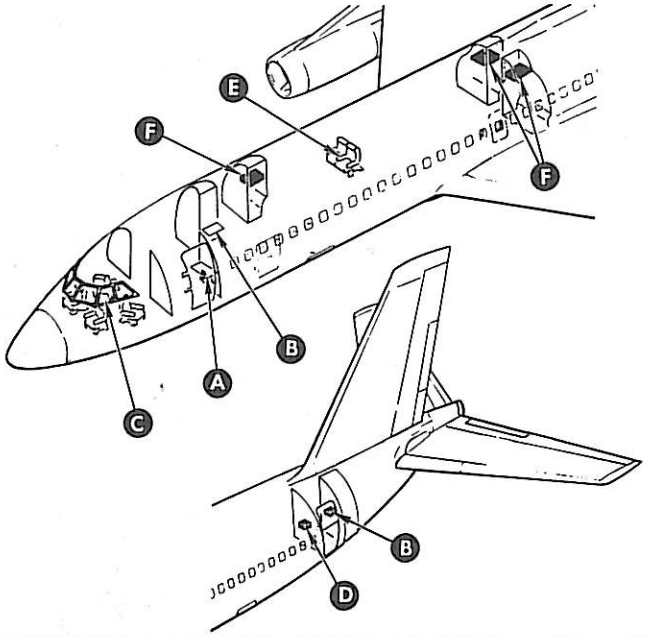


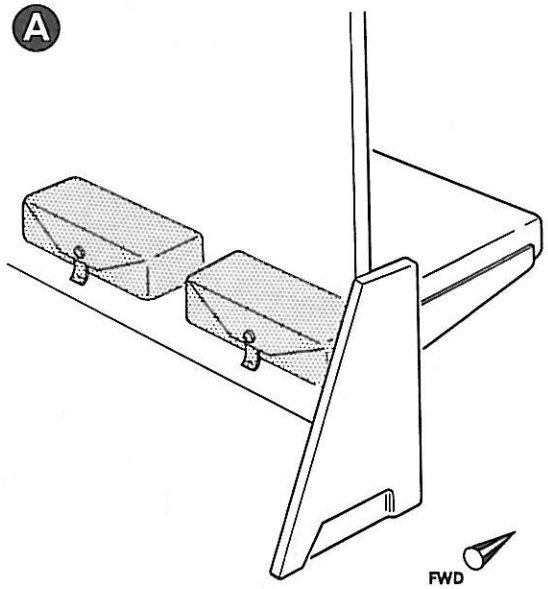
LIFE RAFT AT LEFT-HAND BUFFET SERVICE CABINET

30.02.25.092-1

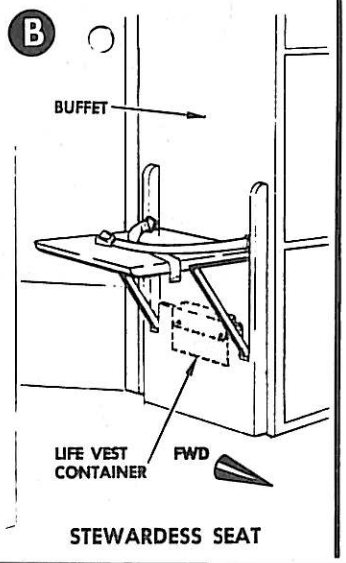


LIFE RAFT AT MOVABLE COAT CLOSETS—TYPICAL

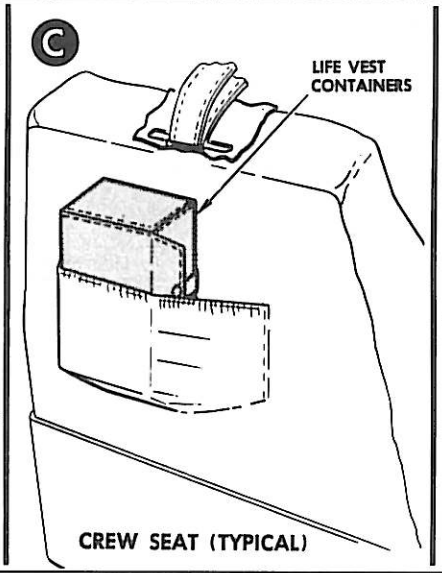




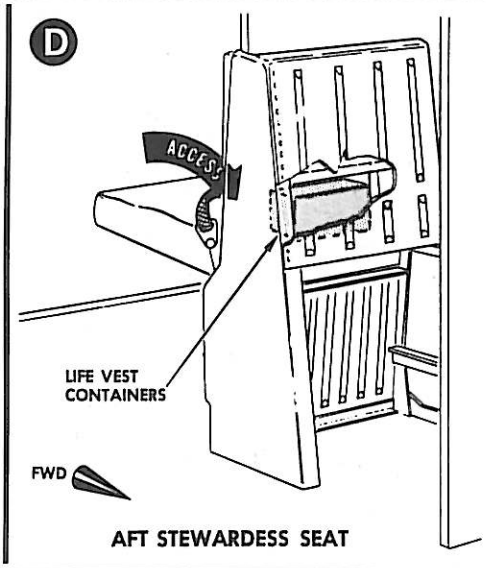
FORWARD STEWARDESS SEAT



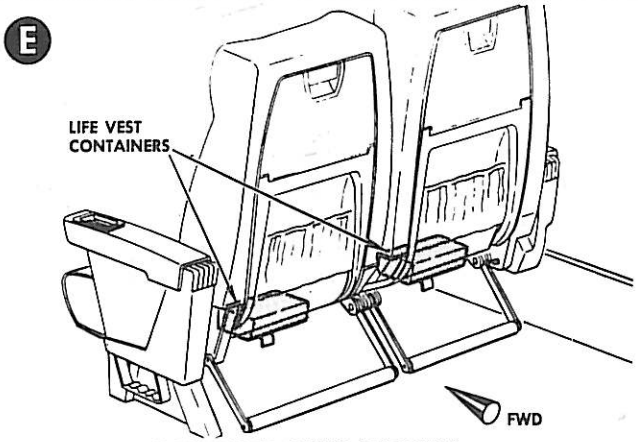
STEWARDESS SEAT



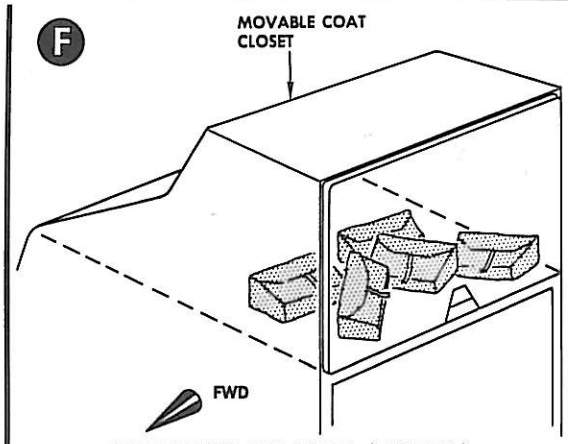
CREW SEAT (TYPICAL)



AFT STEWARDESS SEAT

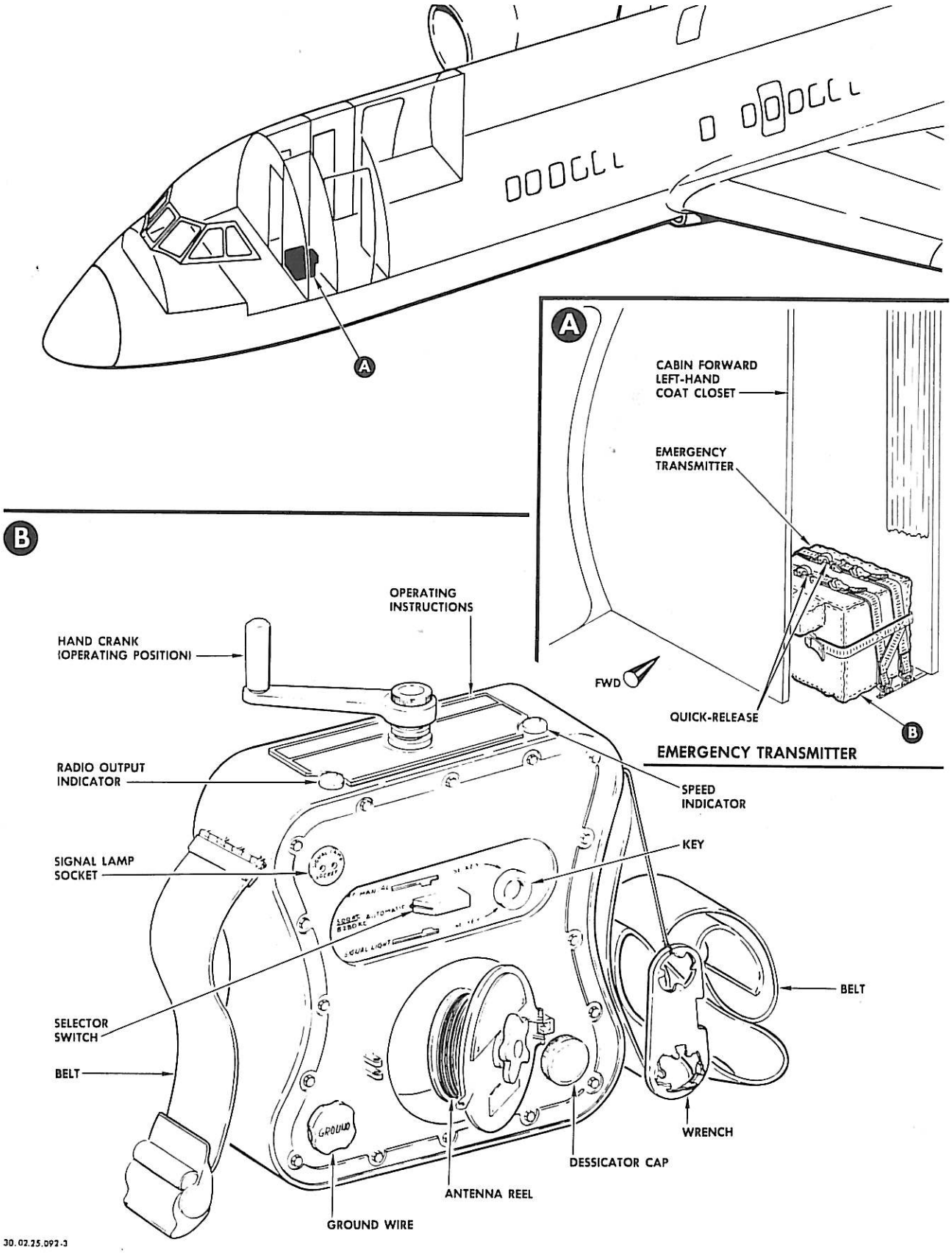


PASSENGER SEATS (TYPICAL)



ADDITIONAL LIFE VESTS (TYPICAL)

30.02.25.092-2


A
CABIN FORWARD LEFT-HAND COAT CLOSET
EMERGENCY TRANSMITTER
FWD
QUICK-RELEASE
B
EMERGENCY TRANSMITTER
OPERATING INSTRUCTIONS
HAND CRANK (OPERATING POSITION)
RADIO OUTPUT INDICATOR
SPEED INDICATOR
SIGNAL LAMP SOCKET
KEY
BELT
SELECTOR SWITCH
BELT
WRENCH
DESSICATOR CAP
ANTENNA REEL
GROUND WIRE
30.02.25.092-3

4. First Aid Kits

Two well equipped first aid kits are provided in the overhead storage compartment above the coat closet in the forward entrance area.

5. Emergency Axe

An emergency axe is provided for escape purposes and is installed on the lower forward side of the flight compartment door. The axe is held in place by a shield over the blade and a strap over the handle.

6. Escape Ropes

Four escape ropes are installed in the airplane, one above each overwing emergency exit, and one above each sliding window in the flight compartment. The escape ropes are illustrated in Figure 1.

The overwing emergency exit ropes are stowed in tubes which are mounted transversely in the ceiling of the passenger compartment; one end of the rope terminating at the side of the emergency exit frame. The rope end is exposed when the emergency exit hatch is removed; this end is equipped with an adapter to fit a keyhole slot in the inboard pylon fairing so the rope may be used for life raft deployment and as a guide rail. The other end of the rope is equipped with a stop to prevent its complete emergence from the stowage tube when used.

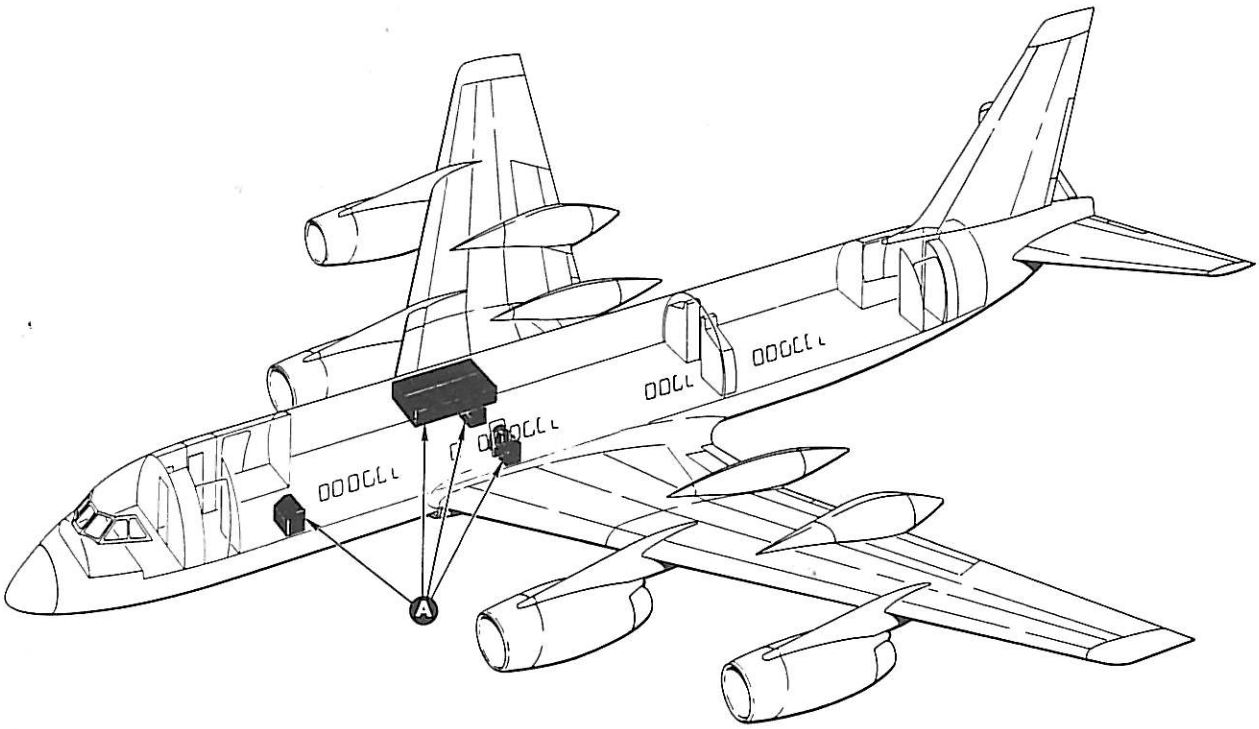
The flight compartment escape ropes are stowed in a small compartment above each sliding window. The compartment is closed by a door with a pushbutton type latch; the door is not hinged and falls out when the latch is pushed. One end of the rope is attached to airplane structure, and the rope is ready for use when the free end is thrown overboard through the sliding window opening.

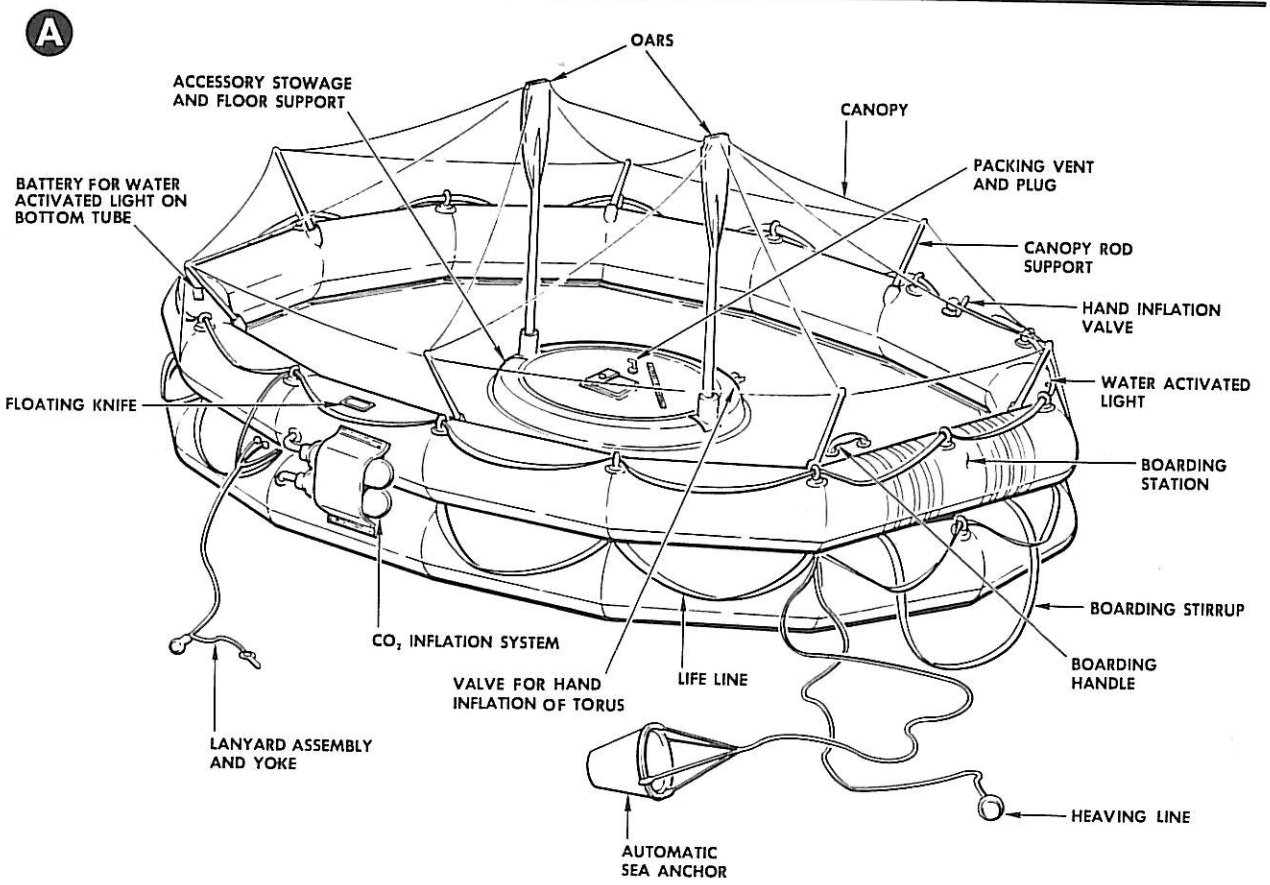
7. Life Rafts (see Figure 3)

A. Description.

Five inflatable 25-man life rafts are installed in the airplane. Two life rafts are stowed aft of the last row of first-class passenger seats on the cabin floor, one on the left-hand side and one on the right-hand side. Two rafts are stowed in the ceiling, at the over-wing emergency exits, and one raft is stowed forward of the buffet service cabinet on the cabin floor. Life raft lanyard fittings are provided at the forward entrance area exits, emergency exits, and at the inboard pylon fairings on the upper surface of each wing.

Each raft is oval in shape, and construction is of high-visibility yellow and orange fabric flotation tubes with a floor suspended between the tubes. Duplicate fixtures permit use of the raft with either side uppermost. An inflatable center torus float supports the center of the raft floor and contains a stowage compartment for raft equipment. Life lines are installed around the outer circumference of the raft with


A


A
OARS
ACCESSORY STOWAGE AND FLOOR SUPPORT
CANOPY
PACKING VENT AND PLUG
BATTERY FOR WATER ACTIVATED LIGHT ON BOTTOM TUBE
CANOPY ROD SUPPORT
HAND INFLATION VALVE
FLOATING KNIFE
WATER ACTIVATED LIGHT
BOARDING STATION
BOARDING STIRRUP
CO, INFLATION SYSTEM
VALVE FOR HAND INFLATION OF TORUS
LIFE LINE
BOARDING HANDLE
LANYARD ASSEMBLY AND YOKE
HEAVING LINE
AUTOMATIC SEA ANCHOR

30.02.25.095

boarding stirrups and boarding handles at each of two boarding stations. Each flotation tube is inflated by a separate CO_2 cylinder, providing faster inflation and added safety.

Life raft accessory equipment consists of a hand pump, two two-section aluminum oars, a nylon sea anchor, a fabric bailing bucket, a canopy with support rods, raft instructions, two sets of repair clamps, and a nylon rope. A survival kit is also provided with each raft.

Mounted on each 25-man life raft inflation tube is a water-activated battery and light. The battery and light are located opposite each other, with the battery on one inflation tube connected to the light on the opposite tube. With this arrangement, one water-activated battery is submerged no matter which side of the raft is up when in use. A floating knife is also installed on each inflation tube.

B. Operation.

Life raft inflation is semi-automatic. A pull handle opens the inflation valve when the raft is thrown from the airplane. The pull handle, connected by a cable to the inflation valve, is attached to the outside of the raft container. When the raft (still inside the container) is thrown overboard, the pull handle is held by a line attached to one cabin compartment escape rope. The weight of the falling raft provides the force necessary to open the valves, releasing the CO_2 gas from the bottles attached to the raft. The expanding gas opens the pack and ejects the raft. In approximately 30 seconds enough inflation takes place to permit the raft to support a full complement of survivors.

After all occupants have boarded the raft, accessories are removed from the center torus section. The hand pump in the accessories container is used to inflate the boarding stations and the center torus section or deck support. The canopy can then be raised and stretched on oars and support rods.

8. Life Vests (see Figure 2)

A. Description.

Life vests are stowed under each passenger seat, near each cabin attendants seat, and in each seat back pocket in the flight compartment. Extra life vests are stowed in the storage compartment of the movable coat closets. The life vests are normally inflated by CO_2 cylinders, with tubes provided for oral inflation. Each life vest is packaged for protection in a polyethylene container.

B. Operation.

A life vest is used by removing the life vest from the container, slipping the vest over the head, securing the straps around the waist, and pulling the strings identified with tags marked JERK TO INFLATE.

9. Emergency Transmitter (see Figure 2)

A. Description.

The emergency transmitter is stowed in the forward left-hand coat closet. The equipment is brilliant orange-yellow for high visibility, and the package is sufficiently buoyant to float.

The complete radio transmitter, including the power supply and keying assembly, is self contained in an aluminum cabinet that is airtight and waterproof. The cabinet is molded to the contour of the operator's legs with a belt provided for securing the transmitter between the operator's legs. The operating controls are located in an elongated oval depression in the front panel of the set and consist of a three-position selector switch and a push-button telegraph key. In the upper left-hand corner of the panel is a jack for the plug-in signal-lamp.

A reel with antenna is fastened to the back of the door in the lower half of the front panel. A brake handle on the outside of the door controls the speed at which the antenna is unreeled. A ground well at the lower left corner of the front panel contains a bobbin with eight feet of ground wire. One end of the ground wire is attached to the ground cap. When not in use the ground cap closes the ground well. A desiccator well at the lower right of the front panel contains a bag filled with silica-gel crystals. These crystals absorb moisture from the interior through openings in the wall of the compartment and dry the air within the transmitter.

The generator and the automatic keying and automatic frequency changing are all operated by turning the hand crank. The hand crank screws into a socket in the top of the cabinet. When not in use, the crank fits into the crank well in the back of the cabinet, where it is held by a special safety pin. The crank socket is covered by a cap when the crank is not in place. A wrench is attached to the belt for use in removing the crank socket cap and ground cap, and in turning the antenna brake handle.

Two indicator windows are provided at the top of the cabinet toward the front. One, marked SPEED INDICATOR KEEP LIGHTED, is illuminated when the crank is turned at the proper speed of 80 revolutions per minute, or faster. The other indicator window is marked RADIO OUTPUT and is illuminated when the transmitter is on the air, flickering with the keying.

Complete instructions for the use of the radio transmitter are provided on top of the cabinet, with markings on the control panel, door, ground cap and antenna.

To support the antenna when in use, a collapsible box kite and balloon are provided. Water-activated hydrogen generators are used to inflate the balloon.

B. Operation.

The radio set automatically transmits, in code, the international distress signal (SOS). Provision is also made to allow manual keying of the transmitted code signals. The radio set may also be used to supply power for a signal lamp. This combination may be used as a hand-keyed signal light to convey messages visually.

When manual keying is used, the radio set operates on the international distress frequency of 500 kilocycles with a 1000-cycle tone modulation. When automatic keying is used, the radio set transmits SOS signals on 500 kilocycles (with 1000-cycle modulation), and 8280 kilocycles (without tone modulation). The frequency automatically changes every 40 to 50 seconds. The power output is approximately 2-1/2 watts on 500 kilocycles and approximately 2 watts on 8280 kilocycles.

If the airplane is crash-landed on water, the emergency transmitter is thrown out of the airplane at the same time the life rafts are removed. Water will not harm the set and it will float until picked up. Instructions for operation of the set and all components are plainly printed on the transmitter of each unit.

LIFE RAFTS - MAINTENANCE PRACTICES

1. Removal/Installation Floor-Installed Life Rafts (see Figure 201)

   A. Equipment Required - None.

   B. Remove Floor-Installed Life Raft.

      (1) On seats forward of movable coat closets move passenger seat backs forward.

      (2) Grasp life raft cover by handle and remove cover.

         NOTE: The life raft tie-down harness quick-disconnect release lever engages a metal "D" ring on the life raft cover. When cover is removed, the "D" ring opens the quick-disconnect and releases the life raft tie-down harness.

      (3) Remove raft with handles provided on life raft container.

   C. Install Floor-Installed Life Raft.

      (1) Place life raft in position with small end of raft up.

      (2) Connect tie-down harness at quick-disconnects and secure life raft in position.

      (3) Install cover over life raft and connect "D" ring to quick-disconnect release lever.

2. Removal/Installation Overhead Life Raft and Container (see Figure 201)

   A. Equipment Required - None.

   B. Remove Overhead Life Raft and Container.

      (1) Remove release handle cover on aft end of container.

      (2) Pull release handle to allow aft end of container to swing down.

      (3) Release retaining straps and remove life rafts.

      (4) Remove each snubber lower attaching bolt.

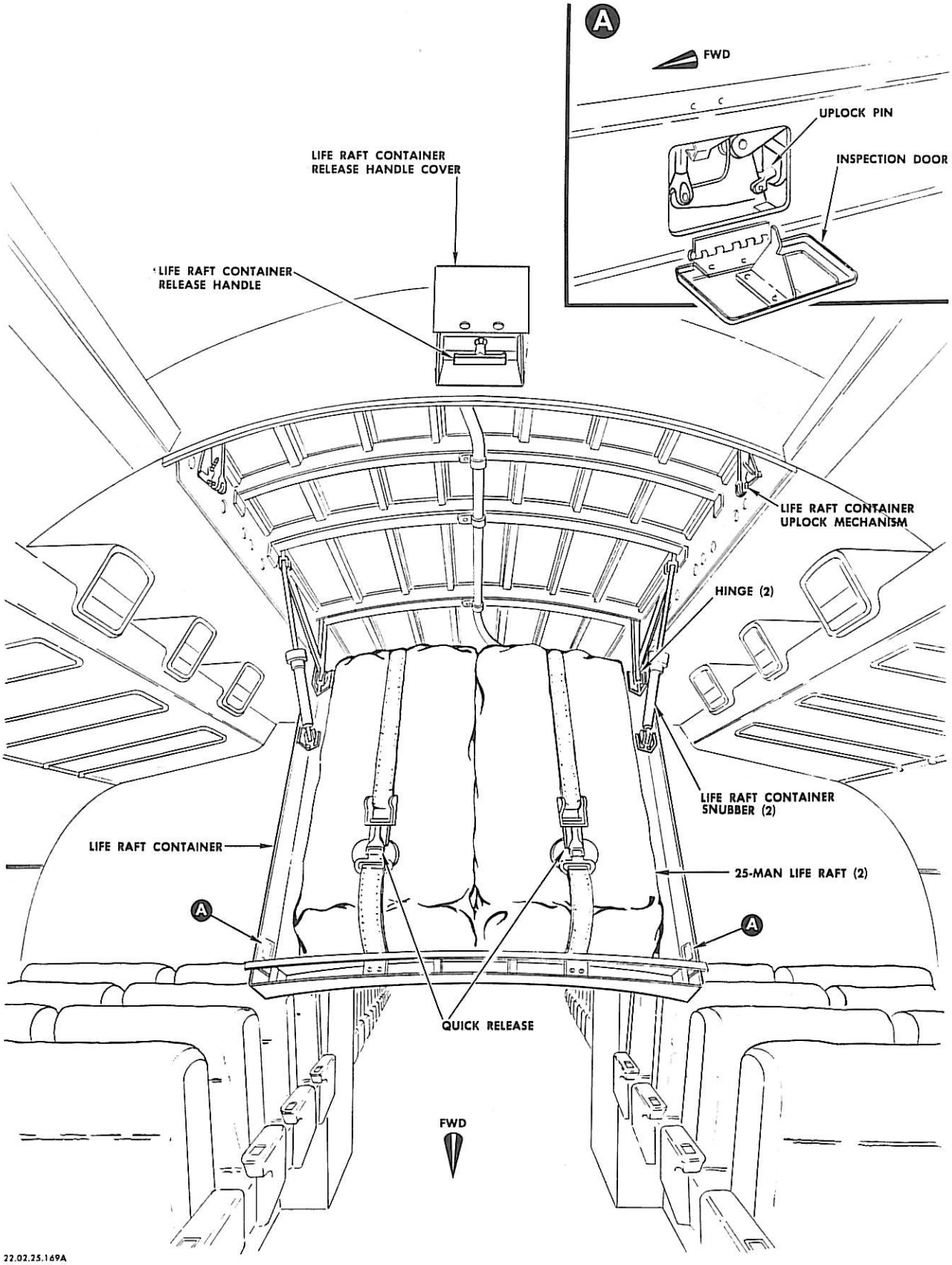
      (5) Support container and remove bolts at each hinge point.

      (6) Remove container.

   C. Install Overhead Life Raft and Container.

      (1) Position life raft container and install bolts at each hinge point.

      (2) Install each snubber lower attaching bolt.



Overhead Life Raft and Container Installation
Figure 201

(3) Install life rafts and secure with retaining straps.

(4) Raise life raft container to closed position.

(5) Push release handle in to engage up-lock pins at each aft corner of container. Visually check pins for engagement through inspection door at each aft corner of container.

(6) Install release handle cover.

3. Adjustment/Test - Life Raft Leak Test

A. Equipment Required.

(1) Air compressor providing oil-free air or a home-type vacuum cleaner.

(2) Mercury manometer or gage calibrated in increments not greater than 0.1 psi.

(3) Tarpaulin or other smooth, clean surface (not wood).

B. Preparation For Leak Test.

(1) Unsnap gas release cables from discharge handle or lanyard.

(2) Open all raft container closure fittings and fold container back.

(3) Lift folded raft from container, being careful not to foul gas release cables.

(4) Unfold raft, being careful to avoid chafing raft fabric.

CAUTION: DO NOT WALK ON RAFT WITH STREET SHOES.

(5) Remove CO_2 cylinder assemblies.

(6) Untie actuating cords of water activated battery. These cords are tied to the nearest life line loop.

(7) Check manual inflation valves as follows:

(a) Rubber plugs are tied to rubber base.

(b) Plug is not stuck to valve base (remove plug).

(c) Plug for tackiness, cuts or foreign matter.

(d) All rubber valves are capable of passing air into inflatable compartments by pumping air through them using pump provided with raft.

(e) Replace plugs. Moisten if necessary.

(8) Check raft for possible perforations, cuts or chafing.

C. Leak Test Life Raft.

(1) Inflate both raft tubes, boarding stations, and deck float to 2.0 psig using filtered, oil-free air from a compressor or a home-type vacuum cleaner. Inflation can be accomplished using manual inflation valves or inlet check valves.

(2) Check that automatic sea anchor and heaving line patches opened satisfactorily.

(3) Allow raft to stand for one hour after initial inflation and check for 2.0 psi. If pressure is below 2.0 psig, bring up to 2.0 psig using dry air.

NOTE: Measure pressure with a mercury manometer or a gage calibrated in increments not greater than 0.1 psi.

(4) Allow raft to stand for 24 hours. The permissible drop in pressure is from 2.0 psig to 1.5 psig.

NOTE: Air pressure in a raft tube, boarding station, or deck float will be affected by temperature. Record temperature of the inspection area at beginning and end of leakage test. Any unusual change in temperature during the 24 hour test period must be considered in the pressure readings. A temperature change of three degrees F will cause a pressure change of 0.1 psig. If the ambient temperature rises, raft pressure will increase. If the ambient temperature decreases, raft pressure will decrease.

(5) If pressure drops below 1.5 psig, check for leaks. Inflate the leaking section to 2.0 psig and apply thick soapy solution.

(6) Check the following items for leaks:

(a) Fabric - Mark area with chalk and repair (refer to Approved Repairs - Life Raft).

(b) Inlet check valve - Replace if defective.

(c) Manual inflation valves - If leaking at plug, check plug for tightness. Replace plug if leak still occurs.

(7) After leaks have been eliminated, repeat steps 3.C.(1) through 3.C.(4).

4. Adjustment/Test - Test CO_2 Cylinder Head Setting

A. Test CO_2 Cylinder Head Setting.

WARNING: DO NOT REMOVE HEAD RROM CO_2 CYLINDER. ONLY OPERATIONAL CHECK OF HEAD IS TO DISCHARGE CO_2 CYLINDER.

(1) Read instructions on the dial face and check that the valve is in proper setting.

(2) If the green dot is not visible and there is no evidence of CO_2 having been discharged, it is an indication that the actuating cam has rotated slightly. Reset the valve as follows:

(a) Remove cover plate.

(b) Using a screwdriver in slot provided, rotate actuating cam counterclockwise until green dot is in proper position.

(c) Replace cover plate.

(d) Check tightness of manifold, inlet check valve coupling nuts, and inlet check valve.

5. Adjustment/Test - CO_2 Cylinder Weight Test

A. CO_2 Cylinder Weight Test.

(1) Weigh cylinder with discharge valve installed.

(2) Check weight with tare weight stenciled on cylinder. Cylinder weight must equal tare weight ±0.06 pound.

(3) Replace cylinder if weight is not within limits.

6. Adjustment/Test - Life Raft Folding Procedure

A. Equipment Required.

(1) Talc or powdered soapstone.

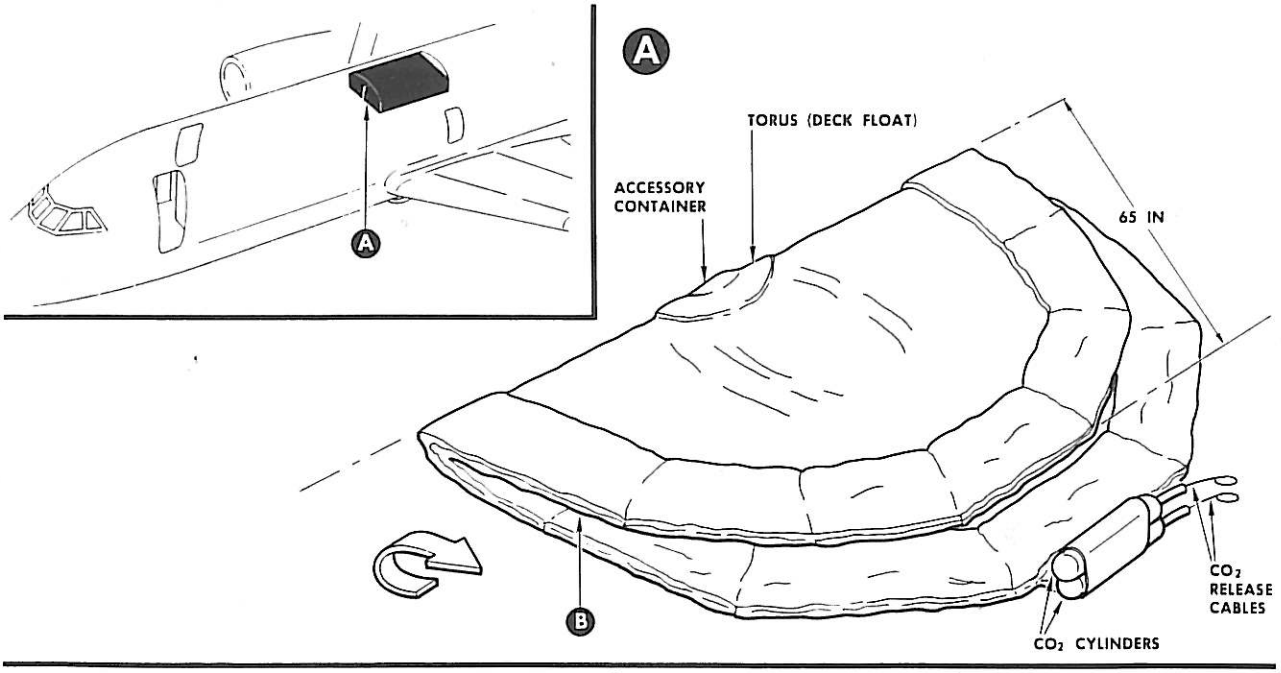
(2) Vacuum cleaner.

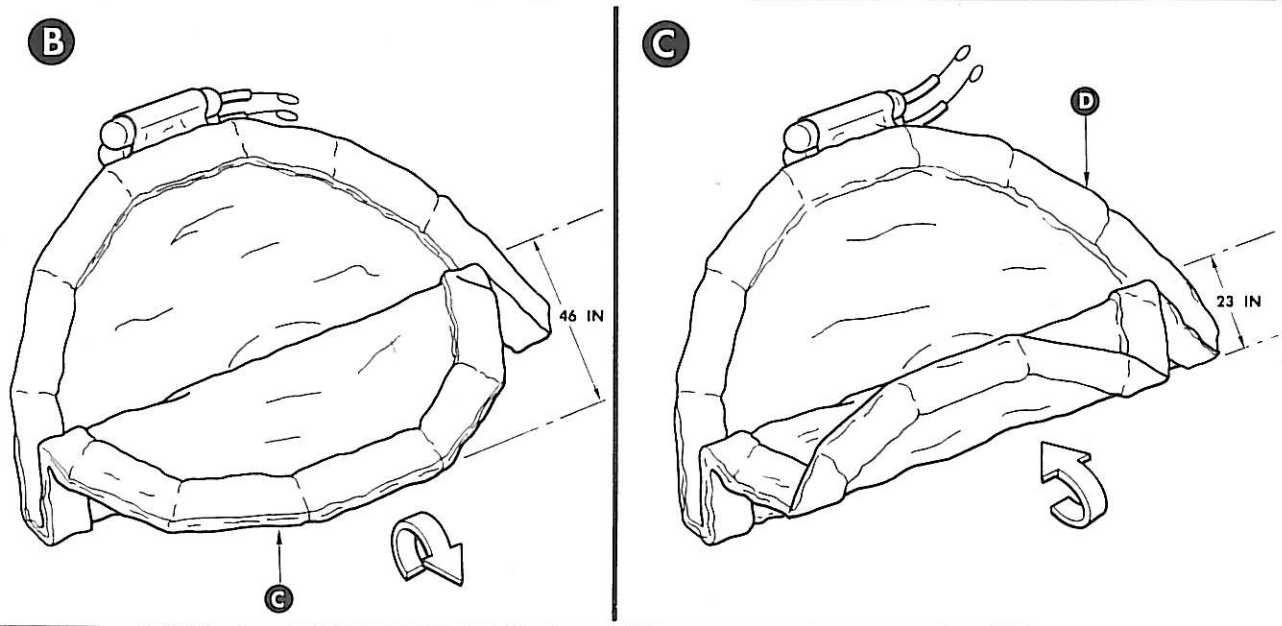
B. Fold Overhead Life Raft (see Figure 202)

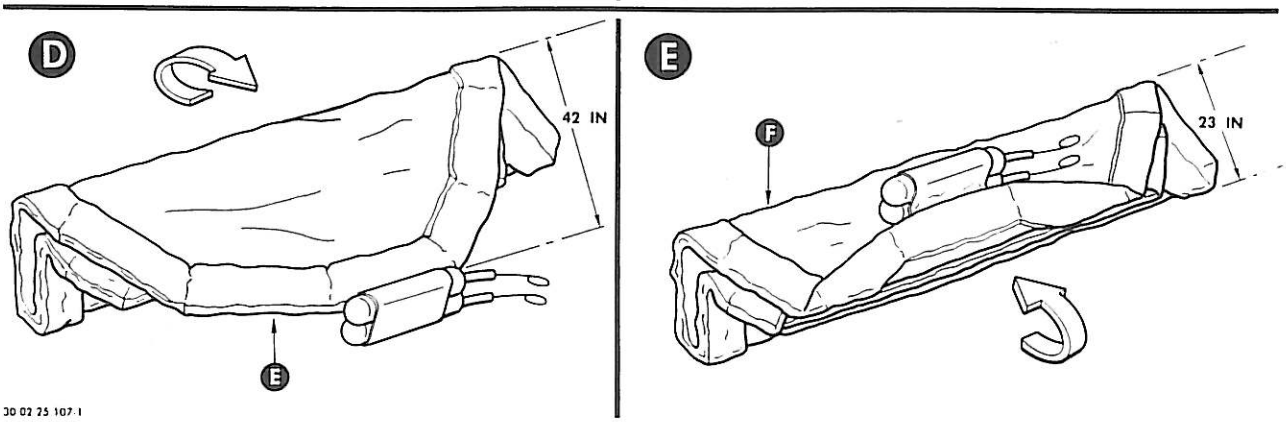
(1) Close all valves on life raft.

NOTE: Install cylinders on raft when raft is inflated so that they are positioned properly and cylinder slings are laced properly.

(2) Check that CO_2 cylinder slings are laced tight and end strap is engaged on bottom of cylinder.







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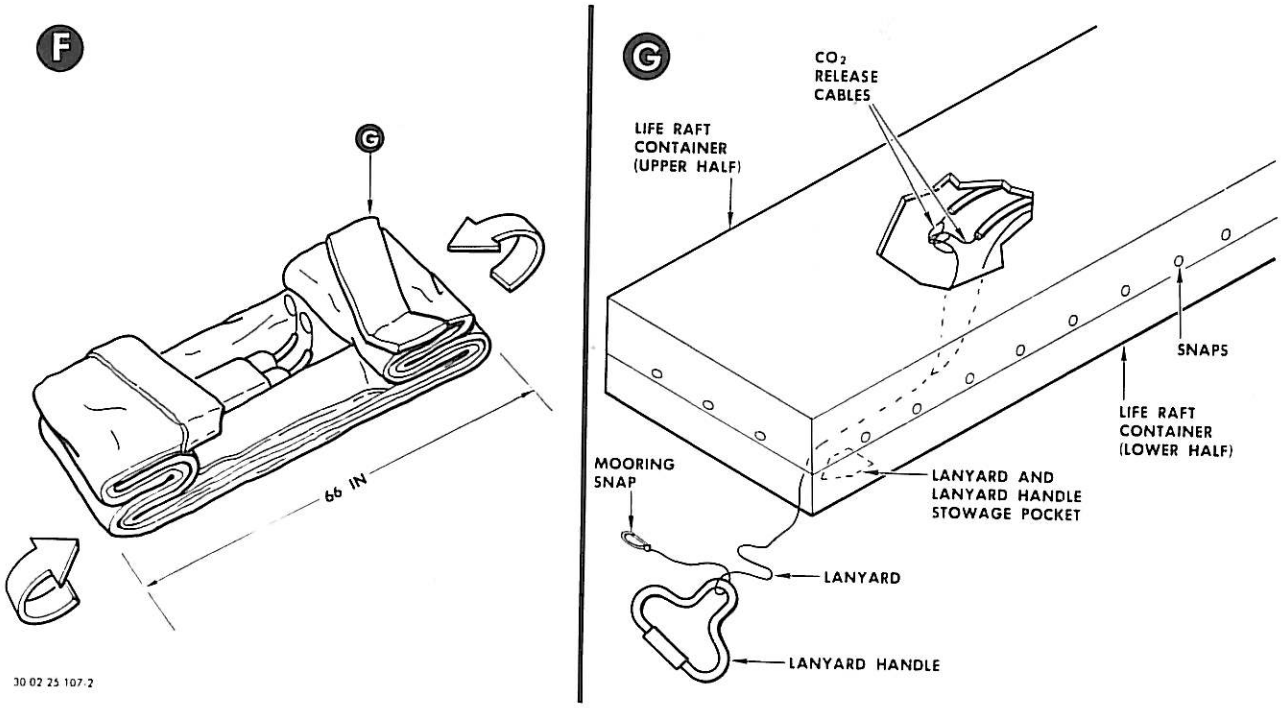
Overhead Life Raft Folding Procedure
Figure 202 (Sheet 1 of 2)


F
G
66 IN
30 02 25 107-2
G
CO2 RELEASE CABLES
LIFE RAFT CONTAINER (UPPER HALF)
SNAPS
LIFE RAFT CONTAINER (LOWER HALF)
MOORING SNAP
LANYARD AND LANYARD HANDLE STOWAGE POCKET
LANYARD
LANYARD HANDLE

(3) Exhaust all air from raft with vacuum cleaner.

NOTE: Close valve immediately upon reaching maximum exhaustion to prevent air being drawn back into raft.

(4) Dust surface of raft with talc or soap stone.

(5) Check that nuts on raft inlet check valve and valve discharge are tight.

(6) Fold sea anchor, fake line and stow in pocket provided.

(7) Insert water-activated battery into holder with cord threaded through plugs in battery and attached to nearest life line loop so that inflating the raft will pull out the plugs. Total length of line from bottom of battery is approximately 13 inches.

	Figure Reference
(8) Fold raft in half and pull top half of raft tightly against packed accessories.	A
(9) Fold top half of raft back on itself to dimension shown.	B
(10) Fold top half of raft over folds made in steps (8) and (9).	C
(11) Fold remaining section of raft back on itself and position cylinders with valve heads nested against and on top of packed accessories.	D & E
(12) Fold left and right-hand portion of raft to dimension shown.	F

(13) Place raft pack in lower half of raft container and rig gas release cables to yoke section of lanyard.

(14) Install upper half of raft container and secure snaps to lower half.

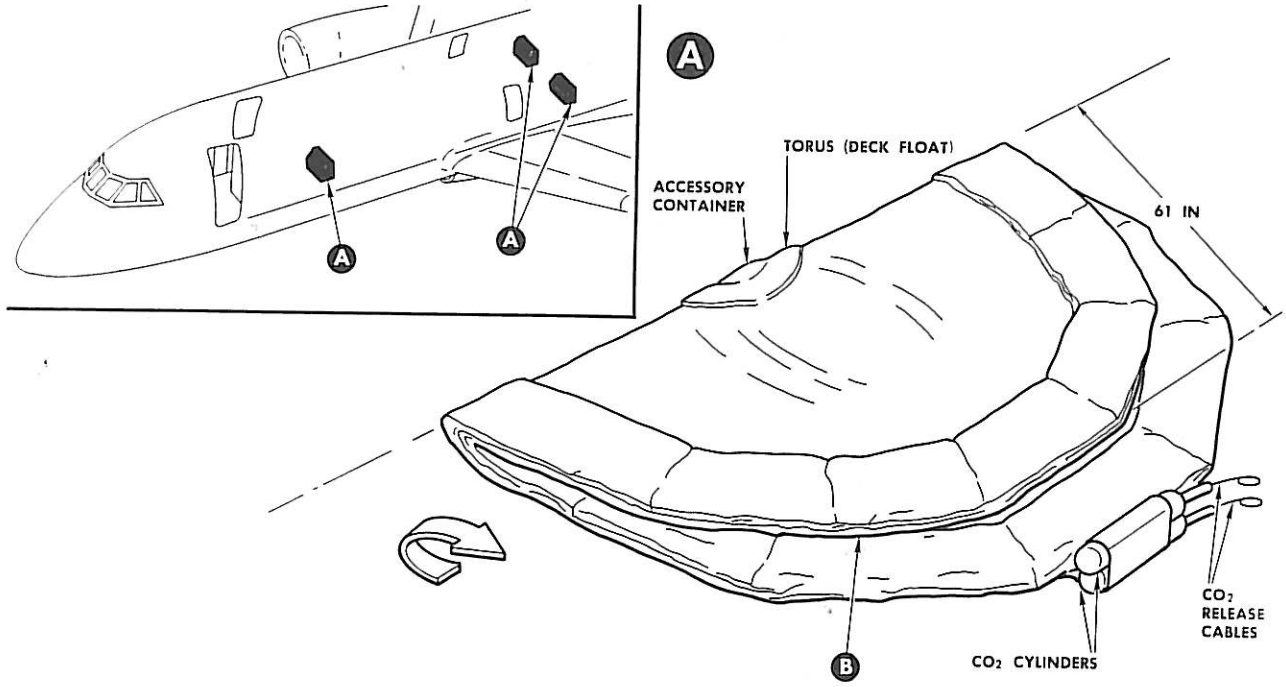
(15) Fake lanyard and stow with lanyard handle in pocket provided.

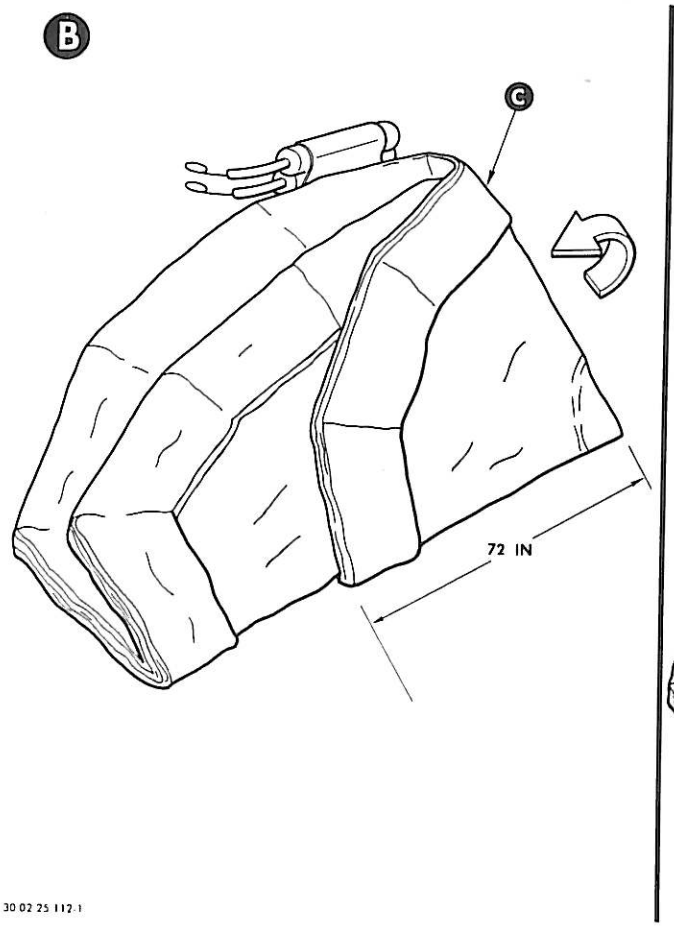
C. Fold Floor-Installed Life Raft (see Figure 203).

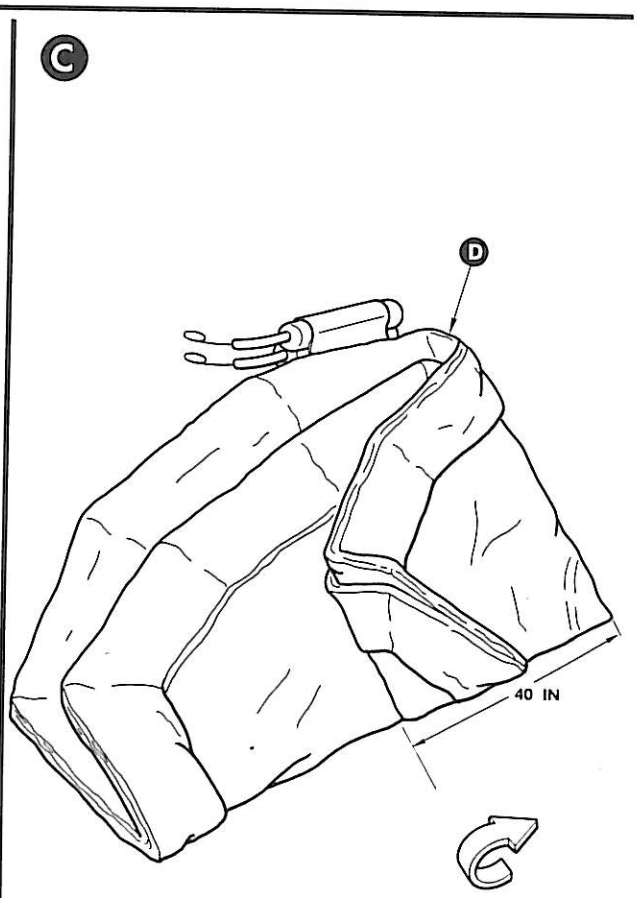
(1) Follow steps B.(1) through B.(7).

(2) Fold raft in half and pull top half of raft tightly against packed accessories. — A

(3) Fold raft from right to left as shown. — B







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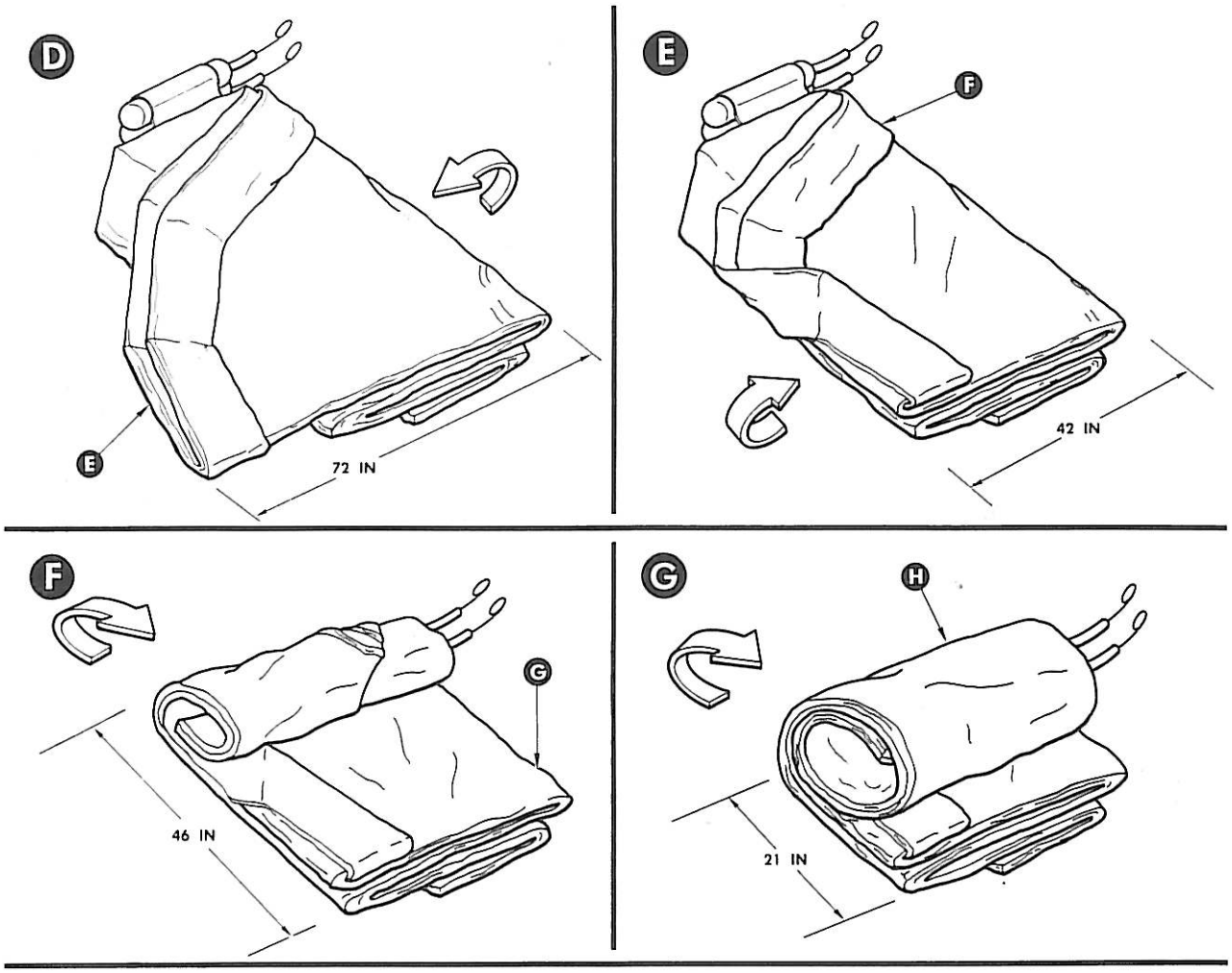
Floor-Installed Life Raft Folding Procedure
Figure 203 (Sheet 1 of 2)


D
E
72 IN
E
F
42 IN
F
G
46 IN
G
H
21 IN
H
LIFE RAFT CONTAINER (UPPER HALF)
MOORING SNAP
LANYARD HANDLE
CO_2 RELEASE CABLES
LIFE RAFT CONTAINER (LOWER HALF)
SNAP
LANYARD
LANYARD AND LANYARD HANDLE STOWAGE POCKET

30 02 25 112 2

	Figure Reference
(4) Fold raft back on itself as shown.	C
(5) Fold left portion of raft under by flipping raft.	D
(6) Fold raft back on itself as shown.	E
(7) Fold cylinders under as shown and then turn same fold under again as shown.	F
(8) Fold top half of raft over accessory container to dimension as shown.	G

(9) Place raft pack in lower half of raft container and rig gas release cables to yoke section of lanyard.

(10) Install upper half of raft container and secure snaps to lower half of container.

(11) Fake lanyard and stow with lanyard handle in pocket provided.

7. Inspection/Check Life Rafts

A. Check the following:

(1) Perform leak test on life raft (refer to Adjustment/Test-Life Raft Leak Test).

(2) Lanyard (static line) attachment to life line loop located near CO_2 cylinders.

(3) Life lines tied to each loop and condition of webbing.

(4) Life line loops for security.

(5) Stirrup attaching patches for security and condition of webbing.

(6) Boarding assist handles attaching patches for security and condition of webbing.

(7) Sea anchor line attachment to life line loop.

(8) Water activated light bulbs for cracks or chips.

(9) Water activated battery water plugs are firmly inserted.

(10) Light plug is tightly plugged into water activated battery.

(11) Snap light tab and battery pocket for security.

(12) Floating knives attachment patches for security and general condition of knives.

(13) Canopy rod support patches and sleeves for security of attachment.

(14) Accessory kit and survival equipment for completeness and general condition of each item.

8. Approved Repairs Life Raft

A. Equipment Required.

(1) Pair of blunt nose scissors.

(2) Emery cloth or sandpaper.

(3) Castor wheel or other roller device.

(4) Clean cloths.

(5) Brush (one-inch) for applying cement.

(6) Rubber cement, (Air Cruisers #2003 Parts A and B or equivalent).

(7) Solvent - Salvasol, Toluol, carbon tetrachloride, chlorothene or high test gasoline.

(8) Patching material - Same as that which raft is made.

B. Procedure For Repairing Holes.

(1) Cut round patch allowing two-inch overlap beyond hole edges.

(2) Lightly buff rubber coating around hole.

CAUTION: DO NOT DAMAGE WOVEN FABRIC.

(3) Wash buffed area with solvent.

(4) Apply three coats of cement around hole, covering an area equal to size of patch.

NOTE: Apply cement in thin, even coats, allowing each to dry before applying next coat. Test for proper setting of cement by lightly pressing knuckle against cemented surface; if knuckle makes a snap when pulled away, the surface is ready for another coat.

(5) Prepare one side of patch in same manner as tube was prepared in steps 8.B.(2) through 8.B.(4).

(6) Dampen a clean cloth in solvent and wipe cemented surfaces with dampened cloth. This brings up tack and makes surfaces ready for joining.

(7) Join cemented surface of patch to cemented surface of tube.

(8) Squeeze out air bubbles between joined surfaces.

(9) Roll joined surfaces applying substantial pressure.

WARNING: TREAT EXPOSED CEMENT AFTER PATCHING WITH SOAPSTONE TO PREVENT STICKING TO ADJACENT AREAS WHEN RAFT IS PACKED.

(10) Leak test raft after cement has cured for minimum of one day (refer to Adjustment/Test - Life Raft Leak Test).

C. Procedure For Repairing Tears.

(1) Trim off loose threads with scissors.

(2) Cut patch large enough to allow two-inch overlap beyond tear edges.

(3) Prepare fabric surface of inside tube wall and one side of patch as per steps 8.B.(2) through 8.B.(4).

(4) Pass patch through tear and lay it, cemented side up, on tube wall directly opposite tear.

(5) Press torn section down on patch, squeeze out all air bubbles between cemented surfaces and roll with substantial pressure to bond patch to tube wall.

(6) Cut patch large enough to allow six-inch overlap beyond tear edge.

(7) Prepare outside of tube wall and one side of patch as per steps 8.B.(2) through 8.B.(6).

(8) Install patch as per 8.B.(7) through 8.B.(10).

D. Procedure For Repairing Seams.

NOTE: Loosened seams or reinforcing patches may be repaired by rolling seam back a reasonable distance so that they may be cemented properly.

(1) Wash tube and tape with solvent.

(2) Apply two coats of cement on surfaces to be joined and allow each coat to dry.

(3) Lay seam and tape in place and roll with pressure being applied to form a good bond.

LIFE VESTS - MAINTENANCE PRACTICES

1. Adjustment/Test - Life Vest Leak Test

   A. Equipment Required.

      (1) Source of oil-free low pressure air.

      (2) Gage marked in increments of not more than 0.1 psi.

   B. Perform Leak Test.

      (1) Inflate each cell of life vest to 2 psig with low pressure air.

      (2) Allow vest to stand for 12 hours and check pressure. Pressure in life vest must be above 1.5 psig.

         NOTE: Air pressure in life vest will be affected by temperature. Record ambient temperature at beginning and end of leakage test. A temperature change or three degrees F will cause a pressure change of 0.1 psig. Pressure increases or decreases respectively.

      (3) If pressure drops below 1.5 psig, return pressure to 2.0 psig, submerge vest in water or apply thick soapy solution to locate leak.

      (4) Repair leak (refer to Approved Repairs - Life Vest).

2. Adjustment/Test - Life Vest Folding Procedure

   A. Equipment Required - None.

   B. Life Vest Folding Procedure.

      (1) Lay vest flat and fold webbing to center of vest (see Figure 201).

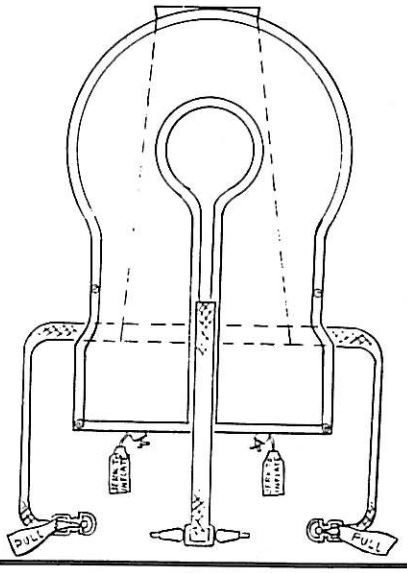
      (2) Fold upper portion of vest down (fold at top of oral inflation tubes).

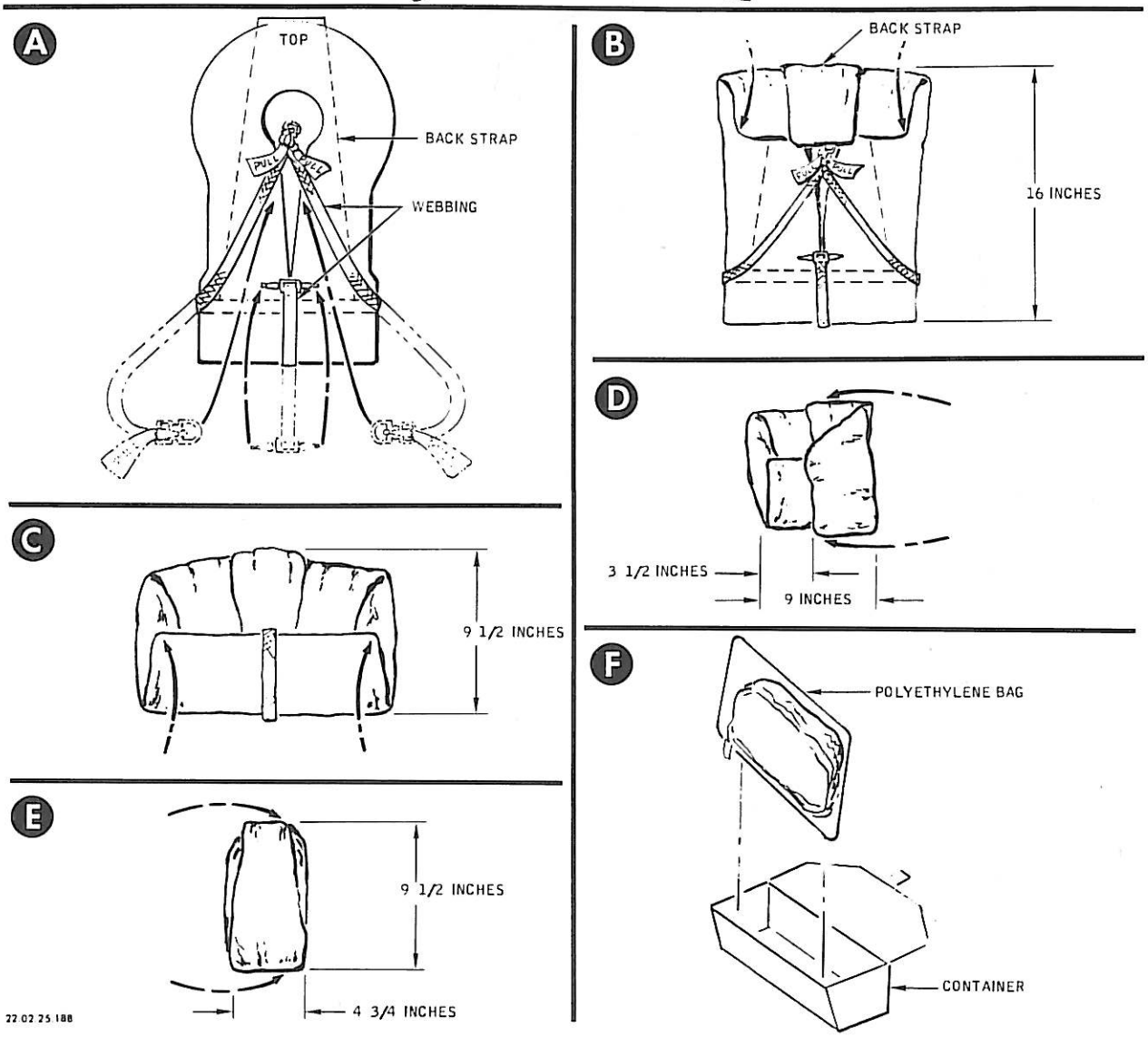
      (3) Fold lower portion of vest up. Folded length of vest should measure 9.5 inches.

      (4) Fold right-hand one-third of vest to center.

      (5) Fold left-hand one-third of vest to center. Folded vest should measure 4.75 inches wide and 9.5 inches long.

      (6) Place folded vest in polyethylene bag.




A
TOP
BACK STRAP
WEBBING
PULL
B
BACK STRAP
16 INCHES
C
9 1/2 INCHES
D
3 1/2 INCHES
9 INCHES
E
9 1/2 INCHES
4 3/4 INCHES
F
POLYETHYLENE BAG
CONTAINER
22.02.25.188

3. Inspection/Check Life Vests

A. Check life vests as follows:

(1) Perform leak test (refer to Adjustment/Test - Life Vest Leak Test).

(2) Inflator holder assembly for safety wire or thread on CO_2 release.

(3) Inflator manifold base for cracking or dried conditions.

(4) CO_2 cylinder has not been discharged and cartridge holder retaining cap is on tight.

(5) Oral inflation tubes for cracks or dried-out, brittle condition.

(6) Oral inflation valve is cemented in tube.

(7) Life vest cells for rips, tears or any obvious damage to body fabric

(8) Waist straps for broken stitches and condition of webbing.

4. Approved Repairs Life Vests

A. Equipment Required.

(1) Cement (Specification MIL-C-5540).

(2) Blunt nose scissors.

(3) Patching fabric (same as life vest fabric).

(4) Brush.

(5) Castor wheel or other roller device.

(6) Soft cloth.

(7) Solvent - Toluol or equivalent.

B. Procedure For Repairing Tears Or Slits.

(1) Trim any frayed or ragged edges of tear or slit.

(2) Cut patch to cover tear with 0.5-inch overlap around edges of tear or slit.

(3) Swab damaged area and one side of patch with solvent (Toluol).

(4) Apply three even coats of cement to patch and area to be covered by patch plus overlap of one-eighth inch. Allow each coat to dry before applying next coat.

(5) After final coat of cement is completely dry (5-15 minutes depending on atmospheric conditions), join cemented surface of patch to cemented surface of life vest.

(6) Squeeze air bubbles from between joined surfaces.

(7) Roll joined surfaces, applying substantial pressure.

NOTE: Cure neoprene cement at room temperature (70 degrees F), for a minimum period of seven days. Heat will reduce length of curing period.

(8) Leak test life vest (refer to Adjustment/Test-Life Vest Leak Test).

C. Procedure For Repairing Pin Holes.

(1) Cut out circular patch to cover hole with minimum of 0.5-inch overlap.

(2) Patch vest as per steps 4.B.(3) through 4.B.(8).

EMERGENCY TRANSMITTER - MAINTENANCE PRACTICES

1. Removal/Installation Emergency Transmitter (see Figure 201)

   A. Equipment Required - None.

   B. Remove Emergency Transmitter.

      (1) Release quick-disconnect buckles on two tie-down straps by pulling up on spring-loaded buckle handle marked PULL.

      (2) Remove transmitter.

   C. Install Emergency Transmitter.

      (1) Place transmitter in position.

      (2) Place ears on locking devices between holes on opposite part of buckle at tie-down strap quick-disconnect buckles.

      (3) Raise PULL handle and swing both locking devices under handle so ears on locking devices engage holes in opposite part of quick-disconnect buckle.

      (4) Release PULL handle to lock the locking devices.

      (5) Tighten tie-down adjustment straps.

2. Adjustment/Test - Functional Test Emergency Transmitter

   A. Equipment Required.

      (1) Radio receiver capable of receiving a 500 and a 1000-kilocycle MCW signal and an 8280-kilocycle CW signal.

   B Preparation.

      (1) Remove emergency transmitter and equipment from bag.

   C. Perform Functional Test.

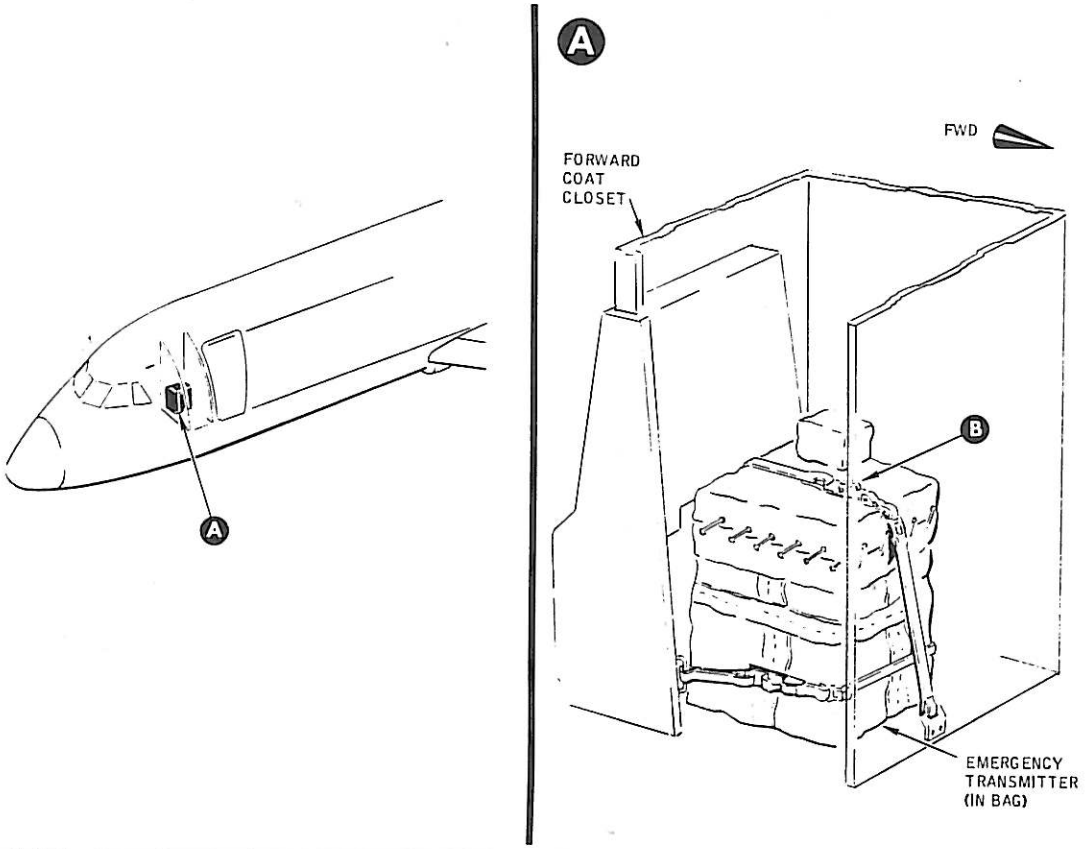
      (1) Open antenna-reel door and lock in open position by inserting cotter key in hole provided.

      (2) Unwind antenna and check operation of reel and brake.

      (3) Remove handcrank shaft cap and insert handcrank.

      (4) Extend antenna lead-in wire in a straight line on a wooden floor or over a chair or box.

         NOTE: Antenna clip must not touch ground or any metal object and transmitter must be fairly close to test receiver.



22.02.25.191

QUICK-DISCONNECT BUCKLE ENGAGED

QUICK-DISCONNECT BUCKLE RELEASED

(5) Set selector switch in MANUAL position.

(6) Tune test receiver to 1000 kilocycles and turn beating oscillator switch on test receiver off.

(7) Turn crank at a speed between 80 and 100 revolutions per minute.

(8) Check that SPEED INDICATOR KEEP LIGHTED lamps are illuminated. Continue cranking for 20 to 30 seconds.

(9) Depress KEY button. Check that RADIO OUTPUT light illuminates. It will be very dim without an antenna load.

(10) Check that a signal is received on monitoring receiver. Be sure that signal is tone modulated.

(11) Set selector switch in 500-K.C.-8280 K.C.-AUTOMATIC position.

(12) Continue cranking until a signal is heard on monitoring receiver (tuned to 1000 kilocycles). Check automatic keying signal for six groups of SOS followed by a long dash of approximately 20 seconds duration.

(13) Tune monitoring receiver to 8280 kilocycles and turn beat frequency oscillator switch on test receiver on. The 8280-kilocycle signal is CW and cannot be heard on a receiver without a beating oscillator.

(14) Continue cranking until a signal is heard on monitoring receiver. Check that RADIO OUTPUT light is illuminated.

NOTE: The light should go on and off with automatic keying and will usually be very dim while the transmitter is on 500 kilocycles and very bright during the 8280-kilocycle transmission.

(15) Check signal heard on monitoring receiver for same coding cycle as in step C.(12).

(16) Insert signal lamp plug into SIGNAL LAMP SOCKET.

(17) Set selector switch to SIGNAL LIGHT position.

(18) Rotate crank at a speed of 80 to 100 revolutions per minute and depress KEY button. Check that lamp is illuminated and that it can be keyed with KEY button.

(19) Replace crank in well on back of transmitter cabinet and secure it with pin provided. Replace crank socket cap.

(20) Coil antenna lead-in wire and close antenna reel door. Lock door with cotter key provided.

(21) Carefully repack equipment in bag and lace bag securely.

(22) Install transmitter in airplane (refer to Removal/Installation Emergency Transmitter).

3. Inspection/Check Emergency Transmitter

A. Check emergency transmitter as follows:

(1) Kite for tears or damage.

(2) Inflating tubes for damage.

(3) Cans containing hydrogen generators and balloons for damage. Opening tabs are not broken and keys are present.

(4) Silica-gel in desiccator well for blue color. Replace with fresh silica-gel if not blue.

(5) Perform functional test (refer to Adjustment/Test - Functional Test Emergency Transmitter).

EVACUATION SLIDE SYSTEM - DESCRIPTION AND OPERATION

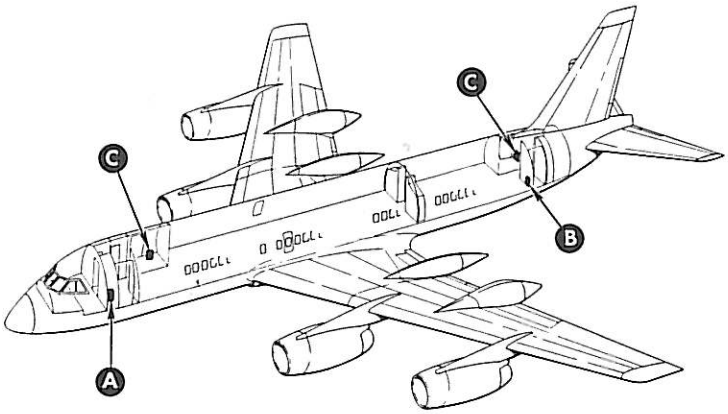
1. General

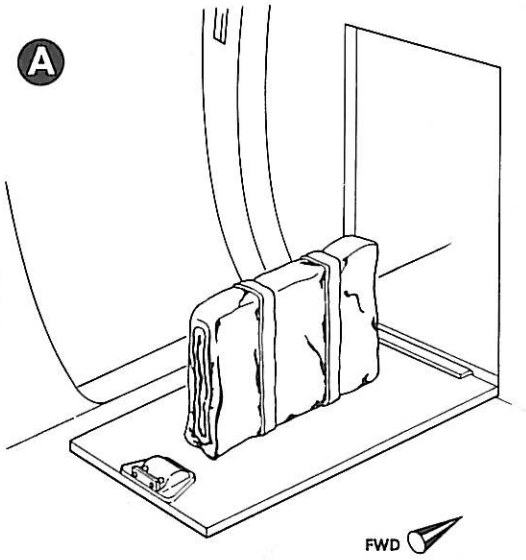
An evacuation slide is provided adjacent to each main entrance and service door in the forward and aft entrance areas (see Figure 1). The slide provided at the forward main entrance door is stored in a compartment in the aft side of the forward coat closet. The slide for use at the aft main entrance door is stored in a slide stowage compartment in the entrance area main cabin partition. The slides provided at the forward and aft service doors are located in buffets No. 2 and 4 respectively. The slides are non-inflatable and are used for emergency evacuation after a forced landing where other facilities are not immediately available. Instructions for use of slides are prominently located just above each slide compartment door.

2. Operation

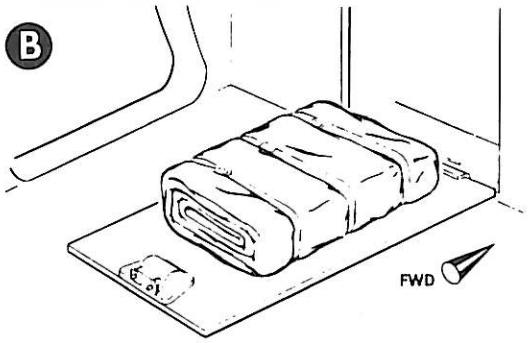
Evacuation slides at both main entrance doors are attached to the slide compartment doors. To use the slide, the slide compartment door is opened and lowered to the floor of the entrance area. Straps holding the slide in the folded condition on the slide compartment door are released by pulling the pins identified with a flag marked PULL. Guide straps on the slide are attached to the color coded door barrier brackets on each main entrance door and the slide is then pushed through the doorway. The slide must be supported by two men on the ground when in use.

The service door evacuation slides are attached to a cable, one end of which is permanently attached to the slide compartment floor. The other end of the cable is attached to a stud on the entrance area floor near the doorway when the slide is in use. The cable and slide are stowed in the slide compartment when the slide is not in use. After opening and lowering the slide compartment door, laces securing the cable handle to the slide stowage strap are unlaced and the cable handle is attached to the stud on the entrance area floor. Then the slide is removed from the slide compartment and a single slide stowage strap is removed by tugging the strap's free end, marked PULL. After these preliminary steps, slide operation is the same as that for the slides at the main entrance doors.

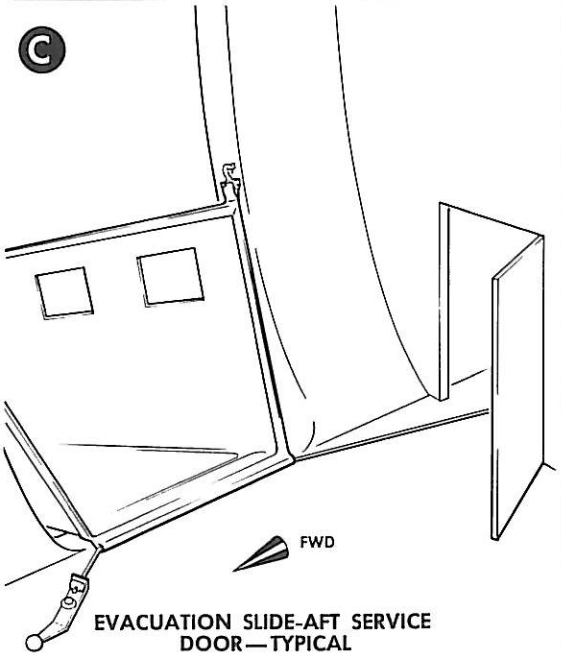




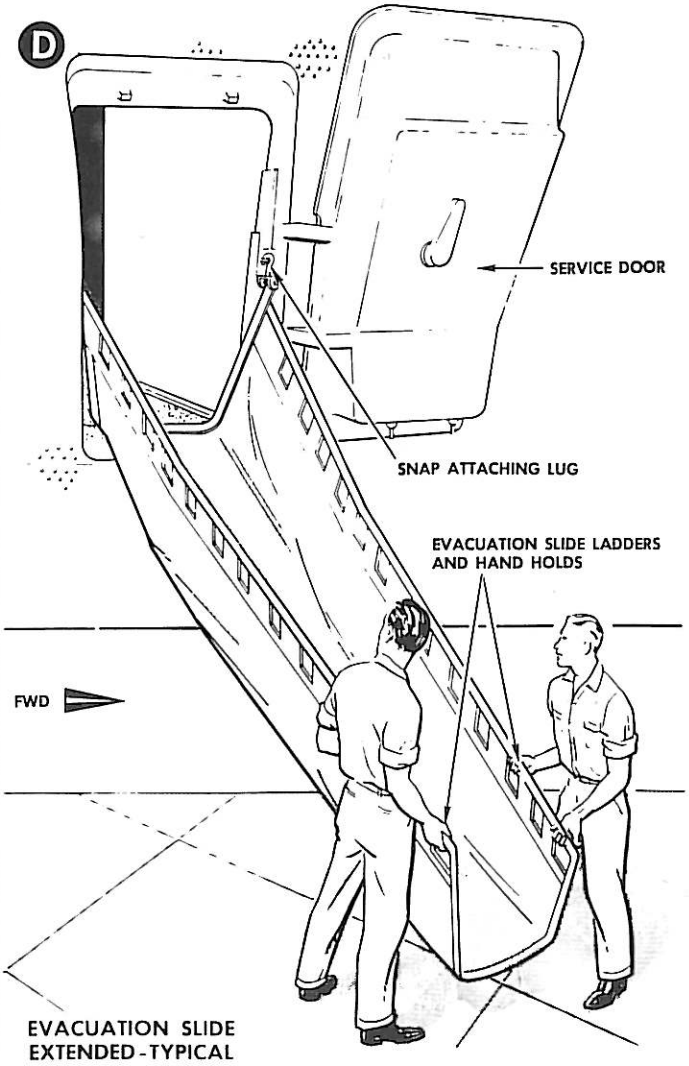
EVACUATION SLIDE-FORWARD MAIN ENTRANCE DOOR



EVACUATION SLIDE-AFT MAIN ENTRANCE DOOR



EVACUATION SLIDE-AFT SERVICE DOOR—TYPICAL



EVACUATION SLIDE EXTENDED-TYPICAL

30.02.25.091

EVACUATION SLIDES - MAINTENANCE PRACTICES

1. Removal/Installation Evacuation Slides (see Figure 1, 25-8-0)

   A. Equipment Required - None.

   B. Remove Evacuation Slide.

      (1) Open and lower slide compartment door to floor.

      NOTE: Step (2) applies to slides at both main entrance doors. Step (3) applies to slides at service doors.

      (2) Unbuckle straps, remove screws attaching slide to compartment door, and remove folded slide.

      (3) Remove slide from compartment and remove screws attaching cable clip to slide compartment floor.

   C. Install Evacuation Slide.

      (1) Fold slide for stowing (refer to Adjustment/Test Evacuation Slides - Folding).

      NOTE: Step (2) applies to slides at both main entrance doors. Steps (3) and (4) apply to slides at service doors.

      (2) Attach slide to compartment door with attaching screws, buckle attaching straps, and close compartment door.

      (3) Install cable clip to slide compartment floor with attaching screws.

      (4) Position slide in compartment with cable handle at compartment doorway and close compartment door.

2. Adjustment/Test Evacuation Slides - Functional Check

   A. Equipment Required - None.

   B. Functional Check Evacuation Slide.

      (1) Open and lower slide compartment door to floor.

      NOTE: Step (2) applies to slide at forward main entrance door. Step (3) applies to slides at aft main entrance and service doors. Step (4) applies to slides at both main entrance doors. Step (5) applies to slides at service doors.

      (2) Adjust slide compartment door stop on entrance area floor to allow 0.06-inch maximum clearance between door and stop.

(3) Adjust slide compartment door stop to allow 0.08-inch clearance between door and stop.

(4) Remove PULL pins to release slide stowage straps and allow slide to unroll.

(5) Attach handle on slide attaching cable to stud in entrance area floor at doorway, remove stowage strap by tugging strap's free end marked PULL, and allow slide to unroll.

(6) Attach hooks on slide-to-door barrier brackets on doorway and push slide through doorway.

NOTE: For actual use of slide, it must be supported by two men on the ground.

3. Adjustment/Test Evacuation Slides - Folding Procedure (see Figure 201)

A. Equipment Required - None.

B. Folding Evacuation Slides.

(1) Remove slide (refer to Removal/Installation Evacuation Slides).

(2) Lay slide out flat on smooth surface.

(3) Fold one side of slide inboard at center seam of slide nearest edge of side being folded. Fold inboard half of folded section outboard. (This will form a "Z" fold as illustrated in Figure 201, view C.) Width of folded slide should be approximately 40 inches.

(4) Fold opposite side of slide in same manner as step B. (3). Width of folded slide should be approximately 20 inches.

(5) Fold top of slide (attaching end of slide) in "Z" shaped fold with slide attaching hooks at top of "Z" and slide-to-door attachment holes or slide attaching cable at bottom of "Z".

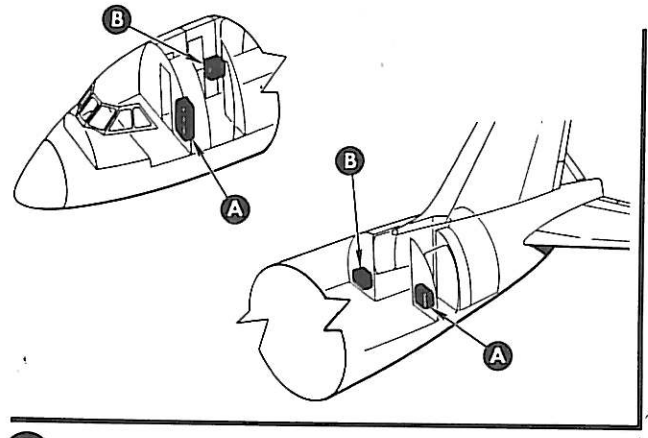
(6) Place plywood spacer at lower end of slide and wrap slide around spacer toward attaching end of slide. Inner side of slide must be on inside of package and hooks inside last roll of slide.

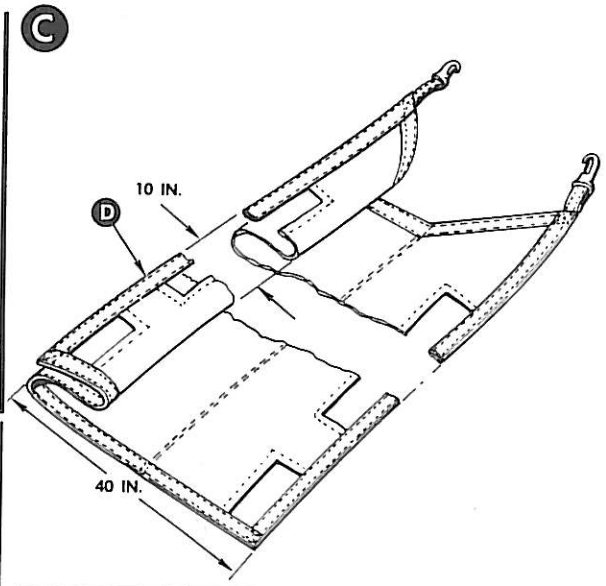
NOTE: Step (7) applies to slides at service doors.

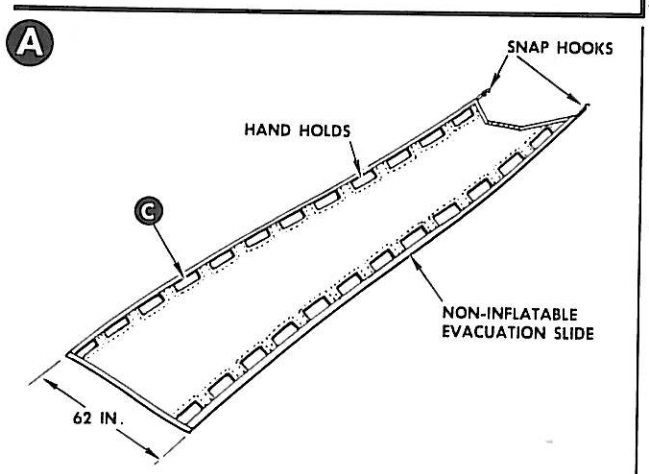
(7) Secure slide in folded position with single strap and attach cable handle to strap, using laces provided on strap.

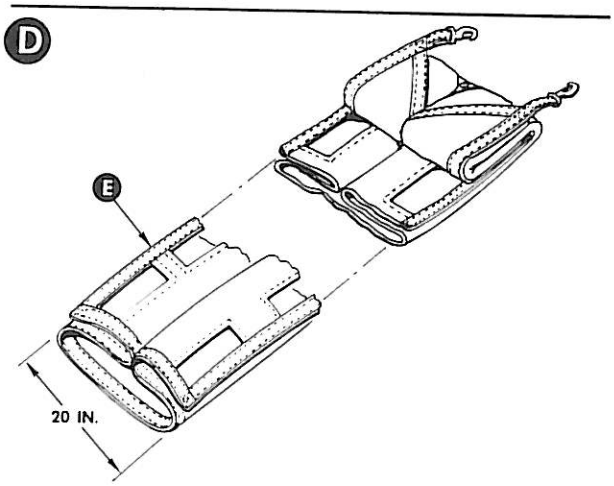
4. Inspection/Check Evacuation Slide

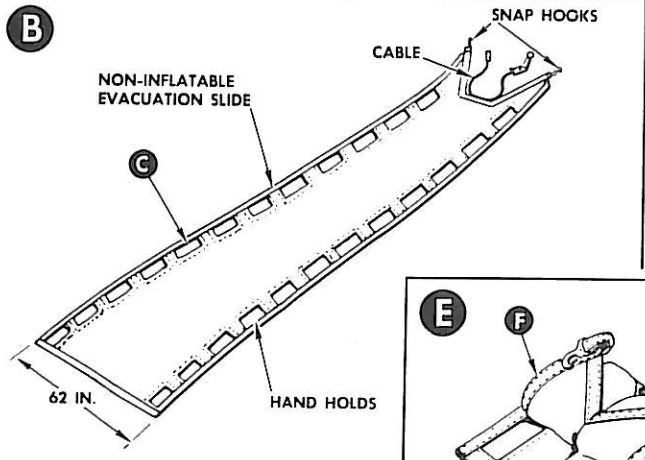
A. Equipment Required - None.

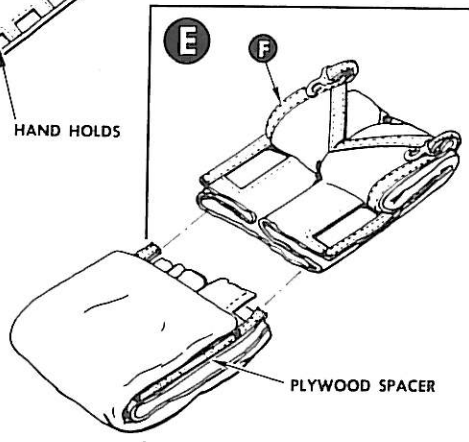

B
A
B
A

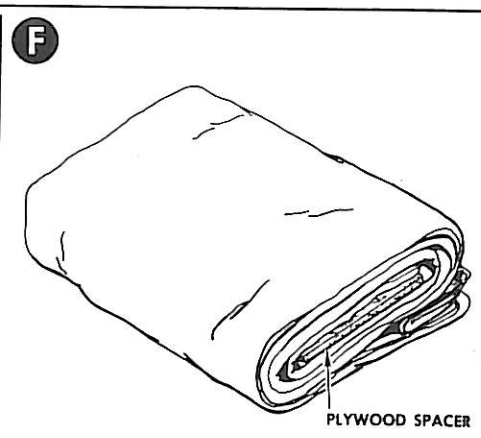

C
10 IN.
D
40 IN.


A
SNAP HOOKS
HAND HOLDS
C
NON-INFLATABLE
EVACUATION SLIDE
62 IN.


D
E
20 IN.


B
SNAP HOOKS
CABLE
NON-INFLATABLE
EVACUATION SLIDE
C
62 IN.
HAND HOLDS


E
F
PLYWOOD SPACER


F
PLYWOOD SPACER

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B. Check slide as follows:

(1) Slide for chaffing, tears, deterioration, cuts, open seams.

(2) Straps for cuts, fraying, tears and deterioration.

(3) Strap buckles and hooks for corrosion and damage.

(4) Slide stowage strap release mechanism for freedom of operation.

(5) Slide to slide compartment door attaching screws for security and corrosion.

5. Approved Repairs Evacuation Slides

A. Equipment Required - Facilities for fabric repairs.

B. General Repair Instructions.

(1) Repair noninflatable evacuation slides by sewing or patching according to standard fabric repair practices.

(2) Repairs must be as strong or stronger than the original condition of the slide.

(3) Patches must be installed on outer surface of slide.

FLARE RELEASE SYSTEM - DESCRIPTION AND OPERATION

1. General

Two solenoid-operated flare chutes are provided in the aft section of the fuselage at station 1670 (see Figure 1). These chutes house flares to be used in case of emergency for illumination of the surface below the airplane. Placing the flare release siwtch, located on the pilots overhead control panel, in the No. 1 or No. 2 position actuates the left or right flare release solenoid, respectively, unlatching the left or right flare chute door and allowing the flare to eject. Two safety pins are provided for use during maintenance, when the FLARE RELEASE switch might accidentally be actuated.

2. Flares

Flares, supplied as loose equipment by the airplane manufacturer, are the Wiley-type SA-8, manufactured by Kilgore, Inc., Westerville, Ohio. Each flare weighs 18 pounds, produces 300,000 candle power for a period of three minutes, and has a maximum descent rate of 550 feet per minute. The flares are $2\frac{1}{4}$ feet in length and $4\frac{1}{2}$ inches in diameter. A cable attached to the flare and to the base of the flare chute, pulls the cap from the flare when it ejects, causing the parachute to open and the flare to ignite. Extreme caution must be used in handling the flares.

3. Flare Release Solenoid

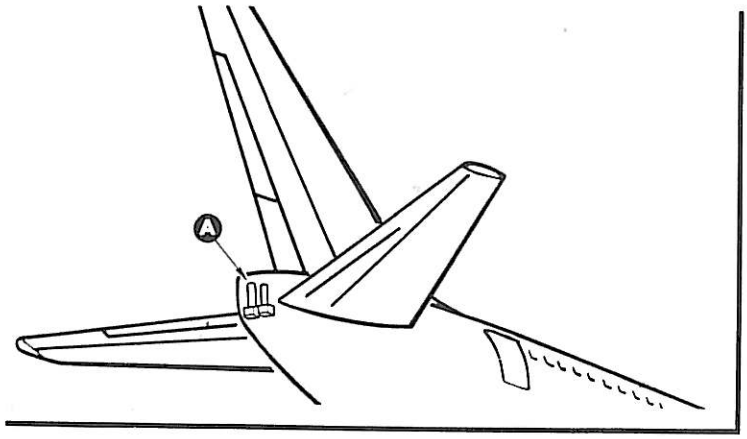
The flare release solenoid is attached to a bracket mounted on the base of the flare chute (see Figure 1). Placing the flare release switch in the No. 1 or No. 2 position completes the circuit from the 28-volt dc emergency bus, through the 10-ampere circuit breaker and the switch to the left or right flare release solenoid, respectively. Energizing the solenoid retracts the solenoid plunger and unlatches the flare chute door.

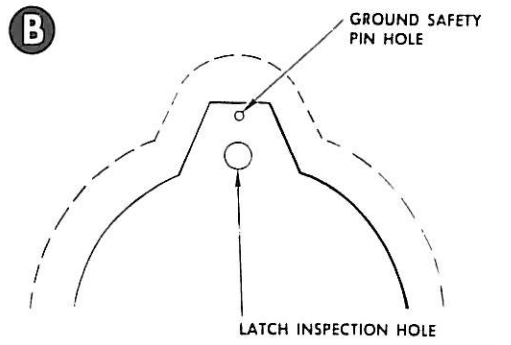
4. Flare Chute

The flare chute consists of the flare chute base and the chute, or flare container. The cast aluminum base contains the flare chute door and door latching mechanism. The chute extends into the fuselage 23-3/4 inches from the top of the flare chute base and is manufactured from 0.032 sheet aluminum alloy 5052S. Inside the flare chute, bolted to the top, is a leaf spring which prevents movement of flare inside chute.

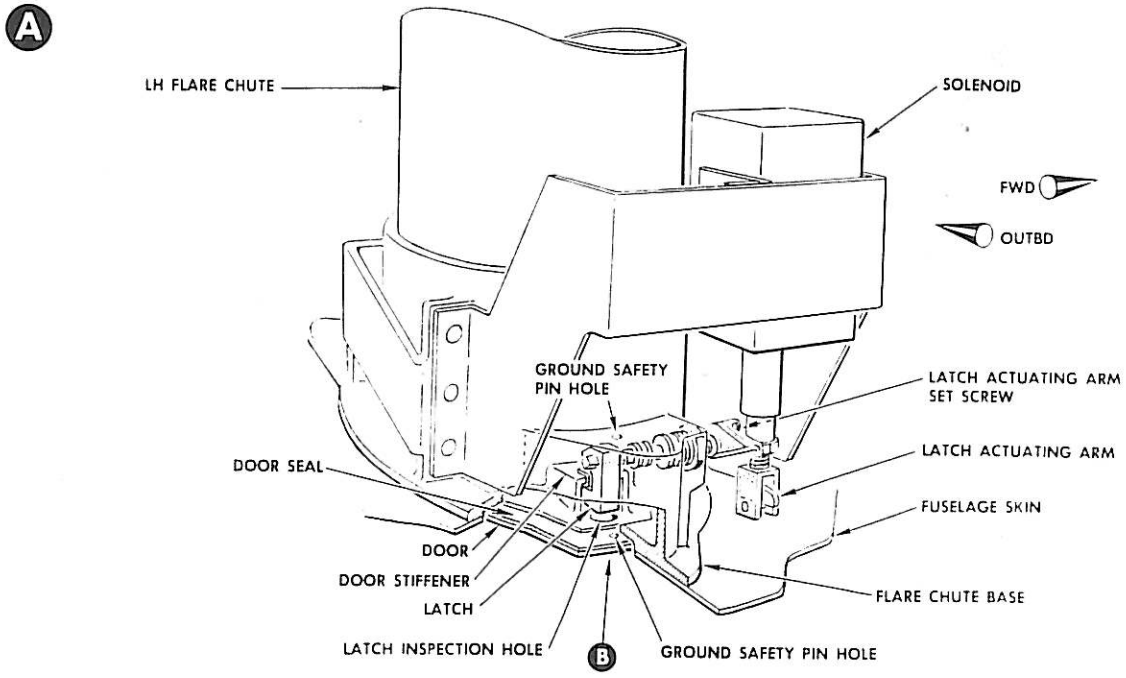
5. Flare Chute Door Latching Mechanism

The flare chute door latching mechanism is located in the base of the flare chute and is actuated by the release solenoid (see Figure 1). The latching mechanism is spring-loaded to the latched position. It consists of a shaft, latch, spring, and actuating arm, held in place with a washer, "O" ring and retaining nut.

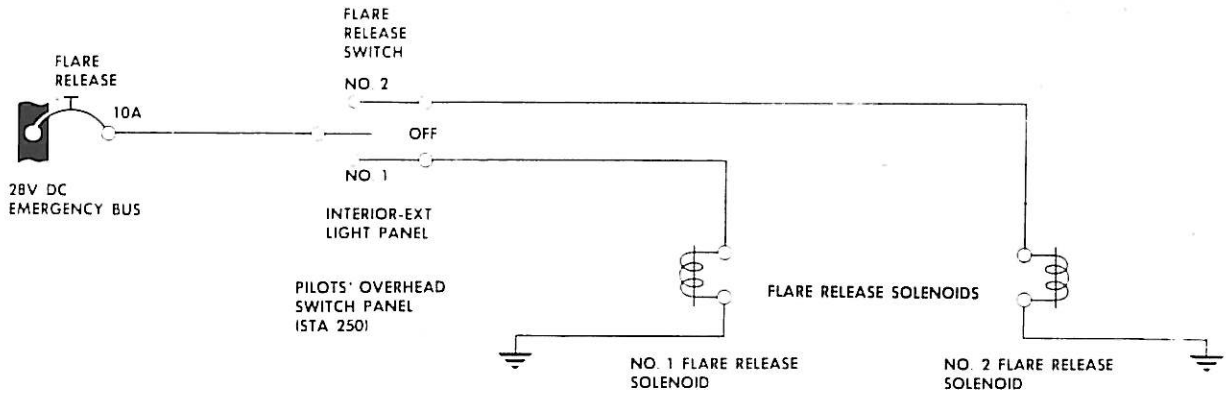




BOTTOM VIEW OF FLARE CHUTE DOOR



NO. 1 FLARE CHUTE LATCH MECHANISM AND RELEASE SOLENOID (STA 1670)



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6. Flare Chute Door

The flare chute door serves to hold the flare in the flare chute. The door is constructed of cast aluminum alloy and 0.032-inch sheet aluminum alloy 2024-T4. Built into the cast portion of the door is the striker, or catch, for the latching mechanism. Attached to the striker is a clip with a set-screw for adjusting the door to the fuselage skin. The door is hinged to the base of the flare chute. A 3/8-inch inspection hole is provided in the door to determine visually when the latch is fully engaged with the striker. Adjacent to the inspection hole is a 1/8-inch hole for rigging and installation of a ground safety pin.

FLARE RELEASE SYSTEM - MAINTENANCE PRACTICES

1. Adjustment/Test Adjust Flare Release System

   A. Equipment Required.

      (1) Rig pin (1/8-inch diameter) for setting left and right flare chute door release latch adjustment.

      (2) Stand suitable to reach flare chute doors.

   B. Adjust Flare Release System.

      WARNING: FLARE CHUTES MUST BE EMPTY WHEN ADJUSTING FLARE RELEASE SYSTEM.

      (1) Check that flare chutes are empty (refer to Removal/Installation Flares).

      (2) Adjust left and right flare chute door and release mechanism as follows:

         (a) Check that release solenoid armature does not bottom on retract stroke. Manually actuate solenoid armature until latch releases and check that armature has not bottomed. Adjust clevis on solenoid to regulate travel of armature.

         (b) Close doors and check that door release catches are properly engaged by inserting rig pin in 1/8-inch check hole located at centerline of flare chute door.

         (c) Check that door assembly does not extend more than 0.018-inch beyond fuselage skin. Door has 0.02-inch up or down adjustment provided by the set screw against the clip on the door striker.

            NOTE: Turn screw clockwise to move door up and counter clockwise to move door down.

      (3) Remove stand.

2. Adjustment/Test Flare Release System Functional Test

   A. Equipment Required.

      (1) External source of ac electrical power (refer to Chapter 24, ELECTRICAL POWER).

      (2) One dummy flare (Wiley-type SA-8).

      (3) Container filled with sand to catch dummy flare.

(4) Intercommunication equipment - ship to ground.

(5) Stand suitable to reach flare chute doors.

B. Preparation.

(1) Connect external source of electrical power (refer to Chapter 24, ELECTRICAL POWER).

(2) Close FLARE RELEASE circuit breaker on main circuit breaker panel.

(3) Install intercommunication equipment (refer to Chapter 23, COMMUNICATIONS).

(4) Station mechanic in flight compartment and at flare chute doors.

C. Flare Release System Functional Test.

WARNING: FLARE CHUTES MUST BE EMPTY PRIOR TO FUNCTIONAL TEST OF FLARE RELEASE SYSTEM.

(1) Check that flare chutes are empty (refer to Removal/Installation Flares).

(2) Place sand filled container under flare chute doors.

WARNING: PERSONNEL MUST STAY CLEAR OF FLARE CHUTE DOOR AREA TO AVOID POSSIBLE INJURY FROM DUMMY FLARE BEING RELEASED FROM CHUTE.

(3) Insert dummy flare (Wiley-type SA-8) in left flare chute, close and, latch door.

(4) Check through 3/8-inch inspection hole in door to see that door latch has fully engaged door striker.

(5) After clearance from mechanic at flare chute doors, actuate FLARE RELEASE switch on pilots' overhead control panel to No. 1 position, then release.

(6) Latching mechanism in left flare chute assembly must release door allowing dummy flare to eject.

(7) Install dummy flare in right flare chute and latch door.

(8) Repeat steps (3) through (6), substituting right for left and No. 2 position for No. 1 position.

(9) Close and latch left and right flare chute doors.

(10) Remove external source of ac electrical power (refer to Chapter 24, ELECTRICAL POWER).

(11) Remove intercommunication equipment (refer to Chapter 23, COMMUNICATIONS).

(12) Remove stand and container of sand.

3. Inspection/Check Flare Release System

Visually Check the Following:

A. Release solenoid armature for scratches, burrs and cleanliness.

B. Flare release solenoid for security of attachment.

C. Wiring to flare release solenoid for security of attachment and signs of chafing.

D. Flare chute base for cracks, loose bolts, loose rivets and corrosion.

E. Flare chute door for loose rivets, security of attachment and cracks.

F. Flare chute door latchimg mechanism for freedom of movement and excess end play in shaft.

G. Weld on side and around top of flare chute for cracks.

FLARES - MAINTENANCE PRACTICES

1. Removal/Installation Flares (see Figure 201)

   A. Equipment Required - Stand suitable to reach flare chute doors.

   B. Preparation - Two mechanics are required for this operation, one inside the fuselage at the flare chutes and one at the flare chute doors.

   C. Remove Flares.

      (1) Outside mechanic insert ground safety pin in 1/8-inch hole in right door and hold left flare chute door closed with his hands.

      (2) After clearance from outside mechanic, inside mechanic manually actuates the left flare release solenoid armature. When left flare chute door latch releases cautiously open door and lower flare.

         NOTE: Cable from top of flare to base of flare chute is of sufficient length to allow removal of flare from flare chute.

      (3) Lower flare from flare chute and disconnect cable from clip at base of flare chute.

         CAUTION: USE EXTREME CAUTION IN HANDLING OF FLARES DURING REMOVAL AND INSTALLATION.

      (4) Repeat steps (1) through (4) actuating right flare release solenoid armature to remove flare in right flare chute.

   D. Install Flares.

      NOTE: Only one man is required for installation of flares.

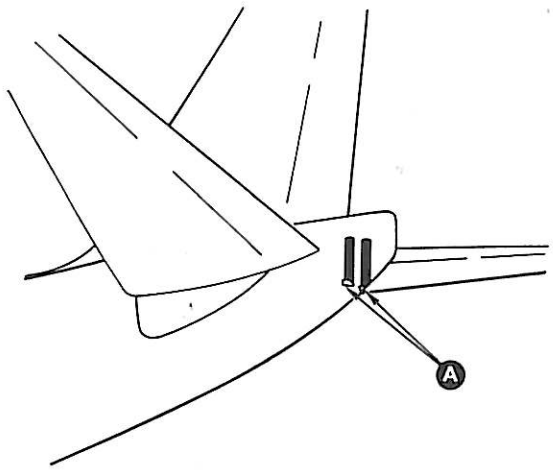
      (1) Coil cable on top of flare, leaving sufficient length of cable uncoiled to reach the length of the flare, and fasten cable to clip at base of the flare chute.

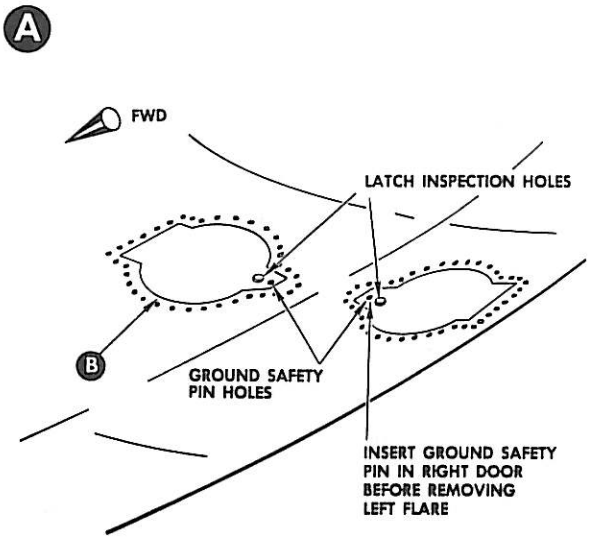
         WARNING: USE ONLY SUFFICIENT TAPE TO PREVENT CABLE FROM UNCOILING DURING INSTALLATION.

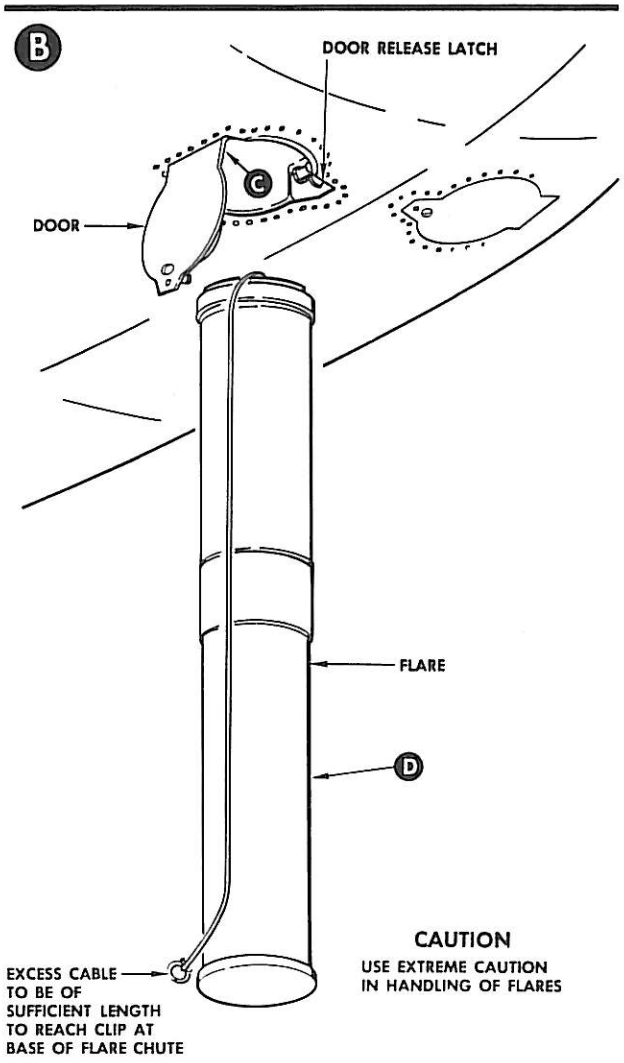
      (2) Tape free end length of cable to flare.

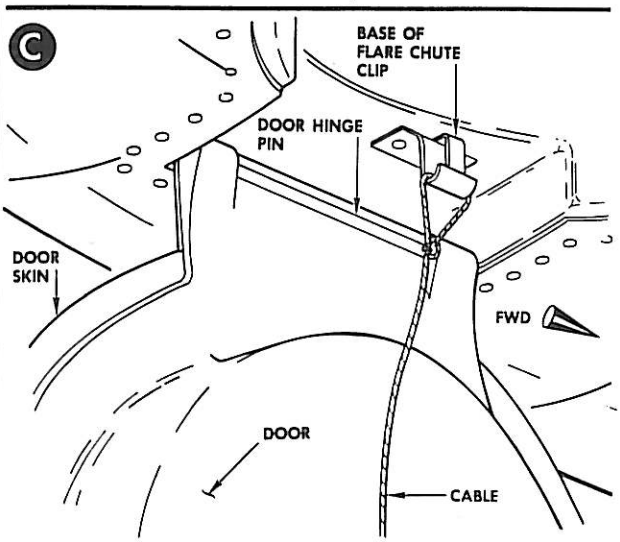
      (3) Insert flare in chute.

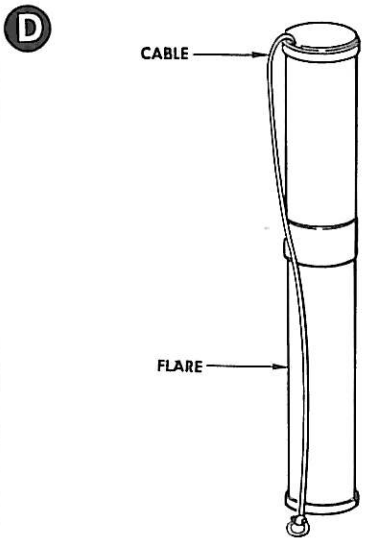
      (4) Hold flare in place manually and attach free end of cable to clip at base of chute.


A


A
FWD
LATCH INSPECTION HOLES
B
GROUND SAFETY PIN HOLES
INSERT GROUND SAFETY PIN IN RIGHT DOOR BEFORE REMOVING LEFT FLARE


B
DOOR RELEASE LATCH
C
DOOR
FLARE
D
EXCESS CABLE TO BE OF SUFFICIENT LENGTH TO REACH CLIP AT BASE OF FLARE CHUTE
CAUTION
USE EXTREME CAUTION IN HANDLING OF FLARES


C
BASE OF FLARE CHUTE CLIP
DOOR HINGE PIN
DOOR SKIN
FWD
DOOR
CABLE


D
CABLE
FLARE

22.02.25.042A

(5) Place pad against bottom of flare and close flare chute door.

(6) Test latch for full engagement of door striker by inserting pin in 1/8-inch hole in flare chute door.

(7) Remove stand.

FLARE RELEASE SOLENOID - MAINTENANCE PRACTICES

1. Removal/Installation Flare Release Solenoid (see Figure 201)

   A. Equipment Required - Work stand suitable to gain entrance to aft fuselage access door.

   B. Preparation.

      (1) Open FLARE RELEASE circuit breaker on main circuit breaker panel and hang warning tag.

      (2) Check that flare chutes are empty (refer to Removal/Installation Flares).

   C. Remove Flare Release Solenoid.

      (1) Gain access to release solenoid through aft fuselage access door.

      (2) Disconnect wiring at solenoid. (Tape and tag leads for installation.)

      (3) Cut safety wire and remove screws attaching solenoid to bracket. (Bag and tag screws for installation.)

      (4) Tilt solenoid to release solenoid clevis from door latch actuating arm and remove solenoid.

   D. Install Flare Release Solenoid.

      (1) Place solenoid in attaching bracket at base of flare chute, at the same time tilting the solenoid to engage solenoid clevis with door latch actuating arm.

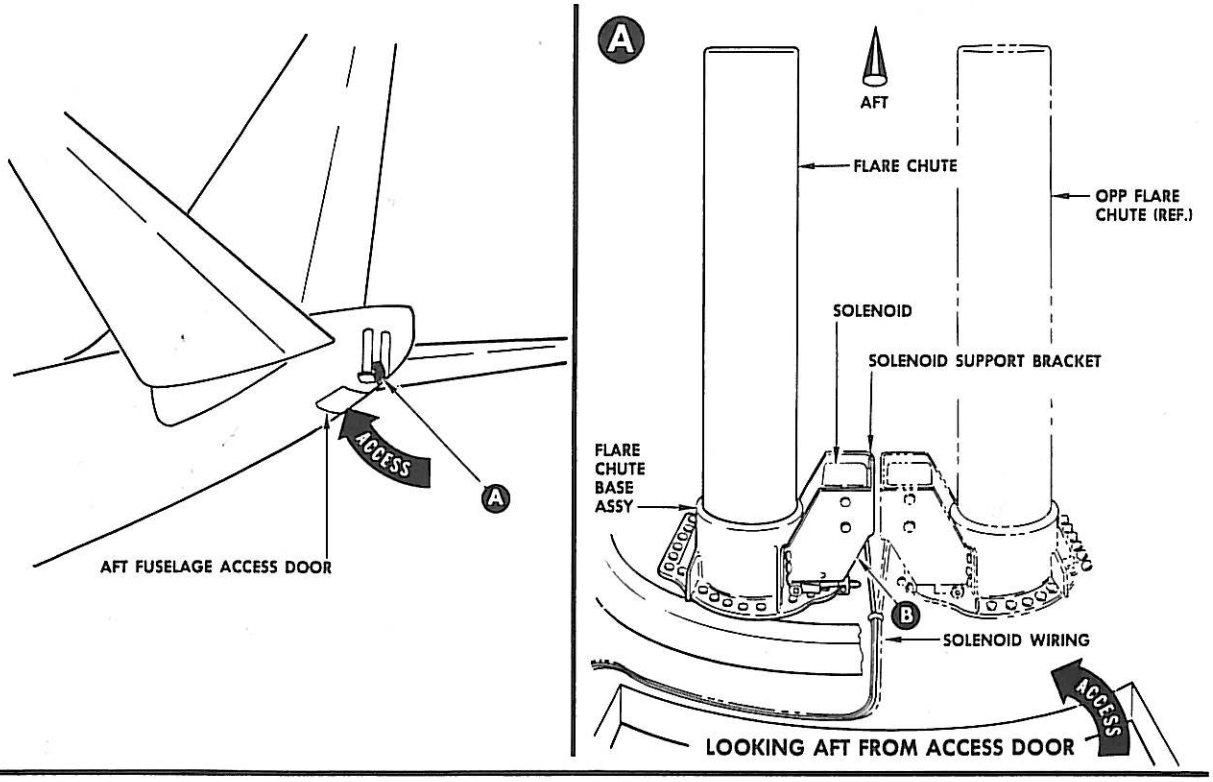
      (2) Install screws attaching solenoid to bracket.

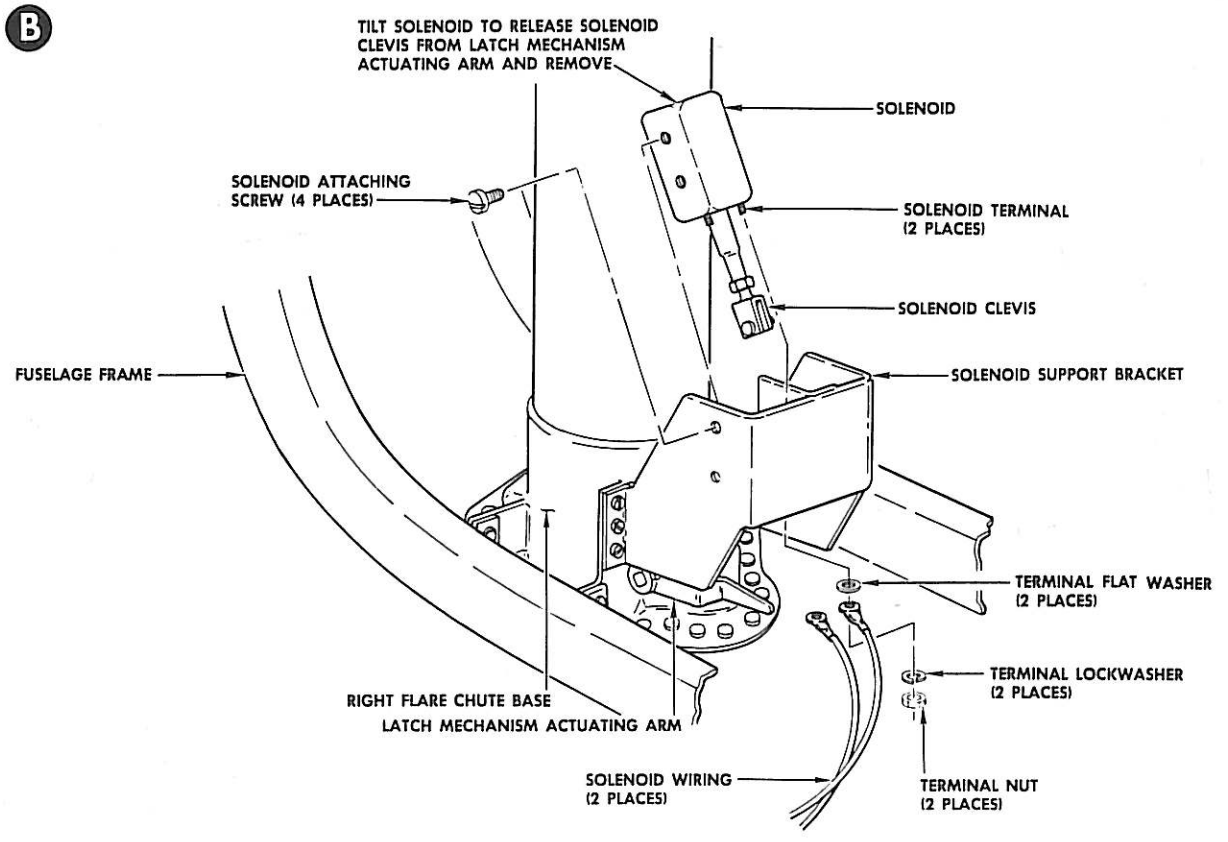
      (3) Safety solenoid attaching screws.

      (4) Connect wiring to solenoid.

      (5) Close FLARE RELEASE circuit breaker on main circuit breaker panel and remove warning tag.

      (6) Perform operational check of flare chute release system (refer to Adjustment/Test - Flare Release System).


A
AFT
FLARE CHUTE
OPP FLARE CHUTE (REF.)
SOLENOID
SOLENOID SUPPORT BRACKET
FLARE CHUTE BASE ASSY
B
SOLENOID WIRING
ACCESS
LOOKING AFT FROM ACCESS DOOR
ACCESS
A
AFT FUSELAGE ACCESS DOOR


B
TILT SOLENOID TO RELEASE SOLENOID CLEVIS FROM LATCH MECHANISM ACTUATING ARM AND REMOVE
SOLENOID
SOLENOID ATTACHING SCREW (4 PLACES)
SOLENOID TERMINAL (2 PLACES)
SOLENOID CLEVIS
FUSELAGE FRAME
SOLENOID SUPPORT BRACKET
TERMINAL FLAT WASHER (2 PLACES)
TERMINAL LOCKWASHER (2 PLACES)
RIGHT FLARE CHUTE BASE
LATCH MECHANISM ACTUATING ARM
SOLENOID WIRING (2 PLACES)
TERMINAL NUT (2 PLACES)

22.02.25.044

FLARE CHUTE DOOR LATCHING MECHANISM - MAINTENANCE PRACTICES

1. Removal/Installation Flare Chute Door Latch Mechanism (see Figure 201)

   A. Equipment Required - Suitable work stand to gain entrance to aft fuselage access door.

   B. Preparation.

      (1) Open FLARE RELEASE circuit breaker on main circuit breaker panel and hang warning tag.

      (2) Check that flare chutes are empty (refer to Removal/Installation Flares).

   C. Remove Flare Chute Door Latch Mechanism.

      (1) Remove flare release solenoid (refer to Removal Flare Release Solenoid).

      (2) Remove solenoid bracket attaching bolts and remove bracket from base of flare chute.

      (3) Cut safety wire and loosen set screw in latch arm.

      (4) Slide latch arm horizontally from shaft. (Bag and tag latch for installation.)

      (5) Loosen set screw in door latch.

      (6) Remove shaft retaining nut from shaft.

      (7) Remove spring, ring and washer from shaft. (Bag and tag loose parts for installation.)

      (8) Remove shaft from base of flare chute. (Bag and tag shaft for installation.)

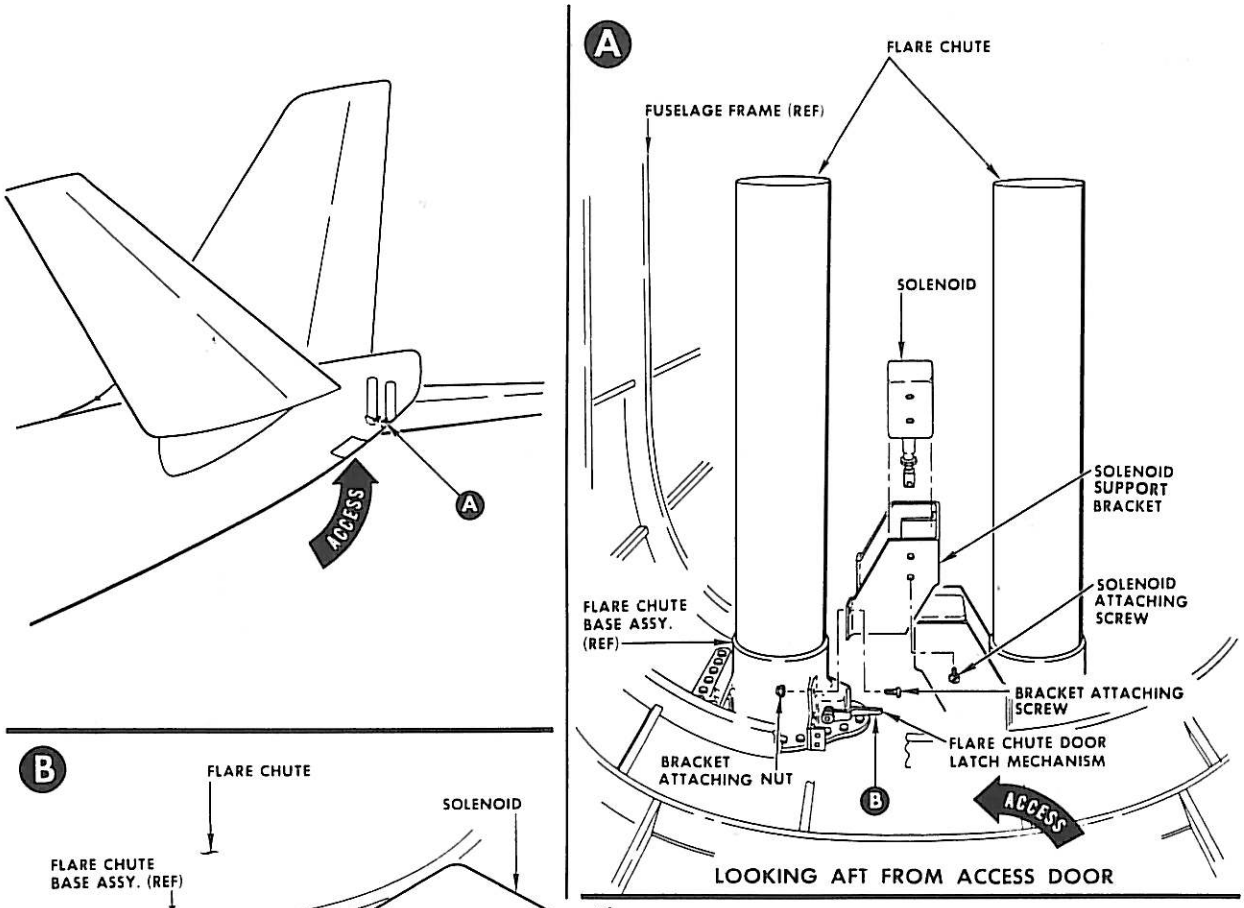
   D. Install Flare Chute Door Latch Mechanism.

      (1) Install shaft, at the same time installing latch in proper position on shaft.

      (2) Install washer on shaft.

      (3) Install shaft retaining nut with ring in groove on nut, and tighten nut.

      (4) Install spring on shaft and attach to flare chute base with attaching screw and washer.



FLARE CHUTE DOOR LATCH MECHANISM

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(5) Install latching arm on shaft.

NOTE: Leave set screw loose to align arm with release solenoid clevis.

(6) Place end of spring over latching arm to provide spring tension on latching mechanism to the latched position.

(7) Install solenoid attaching bracket to flare chute base.

(8) Install solenoid (refer to Removal/Installation Flare Release Solenoid).

(9) Align latch arm with solenoid clevis and tighten set screw. Safety set screw to latch arm.

(10) Align latch with door striker and tighten allen screw in latch.

(11) Close FLARE RELEASE circuit breaker on main circuit breaker panel and remove warning tag.

(12) Perform operational check of flare release system (refer to Adjustment/Test - Flare Release System).

FLARE CHUTE DOORS - MAINTENANCE PRACTICES

1. Removal/Installation Flare Chute Doors

   A. Equipment Required - None.

   B. Preparation. Check that flare chutes are empty (refer to Removal/Installation Flares).

   C. Remove Flare Chute Door.

      WARNING: FLARE CHUTES MUST BE EMPTY PRIOR TO REMOVAL OF FLARE CHUTE DOORS.

      (1) Remove set screw at end of door hinge in flare chute base.

      (2) Remove door hinge through set screw hole and remove flare chute door.

   D. Install Flare Chute Door.

      (1) Place door in position in flare chute base.

      (2) Install hinge through set screw hole in base of flare chute.

      (3) Install set screw.

      (4) Perform operational check of door (refer to Adjustment/Test Flare Release System).